# Grit and Timeshare Sales Performance: A Quantitative Quasi-Experimental Study

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# **Grit and Timeshare Sales Performance: A Quantitative Quasi-Experimental Study**

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## **Abstract**

Discrepant performance among sales representatives is a concern for the timeshare industry due to high costs associated with training and high levels of turnover. Grit has been defined as the perseverance and passion to achieve long-term goals by individuals. The problem is the lack of knowledge of a difference in grit for performance level, gender, and age of timeshare sales representatives for medium-sized companies in the United States. There is a gap in the research because of the lack of exploration into grit in sales in the workforce. The purpose of the quantitative quasi-experimental study was to test for statistical differences in grit level between performance level, gender, and age for timeshare sales representatives for a medium-sized timeshare company in the United States. The theoretical framework guiding the study focused on grit theory and servant leadership. The research questions asked whether a statistically significant difference exists in grit level between performance levels, gender, and age for timeshare sales representatives for a medium-sized timeshare sales company in the United States. A quasi-experimental design was utilized in a population of 57 participants consisting of sales representatives from a timeshare resort in Central Florida. The Grit Scale (Grit-S), an 8-item Likert survey, was used to collect data on participant gender, and age along with grit level. A three-way ANOVA was run to ascertain how grit levels are influenced by the three independent factors. No statistically significant differences nor interaction effects were identified in grit level between performance level, gender, and age for timeshare sales representatives. The results showed participants over the age of 50 had increased levels of grit.

Key Words: grit, timeshare, quasi-experimental, performance, age, gender, sales

## **Dedication**

This dissertation has been a journey and I dedicate it to several people in my life. To my husband, Angel, who has traveled with me through my dissertation process as well as his own. We spent many nights over the last three years working on papers, doing research, strategizing, and supporting each other. I am thankful we did this together and I will love you always! To my son, Dominick, know that anything is possible when you put your mind to it. Never stop reaching for your dreams because I will always be there to support you. To my mother who always pushed for me to go back to school and checked on me many late nights as I did my research. Thank you, Mom, for your constant support! To my sister Monique, for consistently telling me how awesome I was for doing this. Those words helped when my energy levels were down, and I needed the encouragement. Lastly, I have fulfilled my promise to my father (RIP) that I would complete my doctorate. Daddy, I did it!

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## **Chapter 1: Introduction**

Grit, as an idea, had originated in psychology research as an attempt to find methods to improve the lives of individuals (Dugan et al., 2018). *Grit* is defined as enthusiasm and determination for achieving long-standing goals. (Morell et al., 2021). Many would agree success in an individual's life would be considered an improvement. Considering businesses contribute a large portion of the organization's spending to salesforce training and development (Madhani, 2017), grit as a predictor of success can be useful in increasing sales performance levels. A relationship between grit and sales success has been demonstrated substantiating future efforts to examine the construct concerning performance in sales research (Dugan et al., 2018).

When sales representatives fail to succeed or meet the expectations of organizations, representatives are released, and the organization refills the position. The discrepancy in performance among sales representatives is a concern for the industry because of the high training costs and high levels of turnover. Loss of income by the way of customers and loss of training investments are the result of salesperson turnover (Sunder et al., 2017). If grit is related to sales performance, another avenue for training and recruiting successful salespeople may be provided for sales organizations. The background and statement of the problem, purpose, and significance of the study, research questions and hypotheses, theoretical framework, definition of terms, assumptions, scopes, delimitations, and limitations will be discussed in the following sections.

## **Background of the Problem**

The research was focused on the differences in grit level between performance level, gender, and age of timeshare sales representatives. Grit has been defined as the perseverance and passion to achieve long-term goals by individuals (Duckworth et al., 2007; Holdan et al., 2018;

Reysen et al., 2019). Servant leadership has revealed an indirect influence on organizational results such as performance (Eva et al., 2019). The use of servant leadership in the timeshare sales arena may help with grit levels and indirectly influence sales performance levels.

The discrepancy in performance is a concern for the industry because of the high training costs and the cost associated with high levels of turnover related to low-performance levels.

Timeshare is a \$10.2-billion industry with 1,580 timeshare resorts in the United States

(American Resort Development Association: We're the Face of Vacation Ownership, 2020). Grit can be considered by sales managers when evaluating talent for the organization (Rodriguez et al., 2019). Determining if grit is related to sales performance is critical because understanding how grit works provides another avenue for training and recruiting successful salespeople, which will then help reduce the costs associated with turnover.

The literature review provides understanding and contextual information, focusing on a review of the literature for the timeshare industry, grit, sales and performance, growth mindset, servant leadership, a counterargument, the research design, and the gap in the literature. More research will help bridge a gap in the literature for grit. Future studies may concentrate on important areas for sales research on the grit concept and help in discovering relationships of grit in sales (Dugan et al., 2018). The results will assist in addressing the problem.

## **Statement of the Problem**

The problem is the lack of knowledge of a difference in grit for performance level, gender, and age of timeshare sales representatives for medium-sized companies in the Unites States. To sales employees in the timeshare industry, grit is critical to successful timeshare reps because grit is considered an important trait for success and performance (Lechner et al., 2019). Questions arise as to why performance differs among individuals and grit may contain the

answer. One of the crucial topics for business is the shortage of sales talent (Deeter-Schmelz, 2021), and determining if a statistically significant difference exists between grit and performance may assist in salesperson retention. The ability to keep talent is one of the biggest obstacles for sales managers (Rodriguez et al., 2019). Studies have been conducted on grit and the ways grit relates to education, talent, goals, age, gender, and success levels in education. The determination of whether or not a statistically significant difference of grit to sales performance exists in timeshare will add to the literature.

Research of the problem will help contribute knowledge on grit as the knowledge pertains to sales since studies have focused more on academics than on career outcomes and sales. Studies in the future can focus on key areas for sales research on grit and aid in pinpointing relationships of grit in sales (Dugan et al., 2018). Understanding how grit improves outcomes in occupations has not been evaluated closely (Ion et al., 2017). The research focused on grit in sales in the workforce will contribute to filling the gap in the literature.

## **Purpose of the Study**

The purpose of the quantitative quasi-experimental nonequivalent group study was to test for statistically significant differences in grit level between performance level, gender, and age for timeshare sales representatives for a medium-sized timeshare company in the United States. A quantitative methodology was used to test for statistically significant differences using a quasi-experimental nonequivalent group research design. The use of a three-way analysis of variance (ANOVA) assists in determining if an interaction occurs between three independent factors and on a dependent factor (Laerd Statistics, 2017). A three-way ANOVA was used as the statistic test to determine if any main effects exist, or any interaction effects exist between performance level, gender, and age (independent variables) in explaining grit levels (dependent variable).

The three independent variables were performance level (IV1), gender (IV2), and age (IV3) with one dependent variable being the grit level (DV). Performance levels were determined by obtaining sales volume per guest for 60 days and were assessed by dividing the number of sales presentations completed into the salespersons' total sales volume (Timeshare Definitions and Terms, n.d.). Sales volume per guest fell into one of three categories that included high, middle, and low, and comprised the performance level independent variable. Gender was either male or female. Age was retrieved from the administered surveys to participants and was divided into groups (18–25, 26–35, 36–49, and 50+). Grit level (dependent variable) was treated as continuous and was tested using Angela Duckworth's Short Grit Scale (Grit-S) which consists of an eight-question 5-point Likert scale.

The goal of the research was to determine if a statistically significant difference exists between performance level, age, and gender when explaining grit levels in timeshare sales representatives. The group of individuals of interest in a study is the target population (Fisher & Fethney, 2016). Sales representatives from three timeshare resorts (one company) in the Central Florida region comprised the target population. Sample size was calculated using G\*Power 3.1 and was to be approximately 69 sales representatives. The actual sample size after removing outliers and extreme points was 57.

## **Significance of the Study**

Within the timeshare industry, insight into the differences in grit level between performance level, age, and gender of timeshare sales representatives may help in the recruitment process and help reduce turnover. The sizeable costs organizations sustain when salespeople leave can be found in training and substitution, reduced experience, and unreliable performance (Mohapatra et al., 2017). The ability to use grit levels as a recruiting tool may assist

in lowering the rates of turnover and the associated costs. In turn, some of the time and energy used by recruiting and training to hire, train, fire, rehire and train again consistently would be relieved.

An association has been found between the ability to be more successful and persons with high levels of grit because individuals are motivated, focused on goals, and cope well with hindrances (Danner et al., 2019). The ability to use grit levels as an indicator of success might lead to changes in the recruitment process as well as in training agendas. Individuals gaining access into an organization would already have high levels of grit and motivation to succeed. Current sales agents could be scheduled for intervention which may increase grit levels and contribute to future success. An encouraging environment would be created for all within the organization to benefit from.

## **Research Questions**

Research questions generally attempt to identify gaps in the literature, which need to be filled (Alvesson & Sandberg, 2011). Creating research questions is an important part of guiding growing knowledge in research (Thuan et al., 2019). In the quantitative study, there were three independent variables (performance level, age, and gender) and one dependent variable (grit level). The following research questions guided the study to establish a statistically significant difference among variables:

Research Question 1: Does a statistically significant difference exist in grit level between performance levels (high, middle, or low) for timeshare sales representatives for a medium-sized timeshare company in the United States?

Research Question 2: Does a statistically significant difference exist in grit level between gender (male or female) for timeshare sales representatives for a medium-sized timeshare

company in the United States?

Research Question 3: Does a statistically significant difference exist in grit level between ages (18–25, 26–35, 36–49, and 50+) for timeshare sales representatives for a medium-sized timeshare company in the United States?

Research Question 4: Does an interaction effect exist of performance level (high, middle, or low), gender (male or female), and age (18–25, 26–35, 36–49, or 50+) of grit level for timeshare sales representatives for a medium-sized company in the United States?

## **Hypotheses**

Researchers are presented with formulating hypotheses derived from a theory and devising a study to test them (Scheel et al., 2021). In the quantitative study, there are three independent variables (performance level, age, and gender) and one dependent variable (grit level). To help answer the research questions, the following null and alternative hypotheses were formulated:

H1<sub>0</sub>: A statistically significant difference does not exist in grit level between performance level (high, middle, or low) for timeshare sales representatives for a medium-sized company in the United States.

H1: A statistically significant difference does exist in grit level between performance level (high, middle, or low) for timeshare sales representatives for a medium-sized company in the United States.

H2<sub>0</sub>: A statistically significant difference does not exist in grit level between gender (male or female) for timeshare sales representatives for a medium-sized company in the United States.

H2: A statistically significant difference does exist in grit level between gender (male or

female) for timeshare sales representatives for a medium-sized company in the United States.

H3<sub>0</sub>: A statistically significant difference does not exist in grit level between age (18–25, 26–35, 36–49, or 50+) for timeshare sales representatives for a medium-sized company in the United States.

H3: A statistically significant difference does exist in grit level between age (18–25, 26–35, 36–49, or 50+) for timeshare sales representatives for a medium-sized company in the United States.

H4<sub>0</sub>: A significant interaction effect of performance level (high, middle, or low), gender (male or female), and age (18–25, 26–35, 36–49, or 50+) does not exist for grit level for timeshare sales representatives for a medium-sized company in the United States.

H4: A significant interaction effect of performance level (high, middle, or low), gender (male or female), and age (18–25, 26–35, 36–49, or 50+) does exist for grit level for timeshare sales representatives for a medium-sized company in the United States.

## **Theoretical Framework**

The two theories used to guide the study are grit theory (Duckworth et al., 2007) and servant leadership (Greenleaf, 1977). Grit was first introduced and then defined as an individual's perseverance and passion to achieve long-term challenging goals (Duckworth et al., 2007). Grit theory is an individual's capacity to sustain the consistent top-level goal for an extended period (Duckworth, 2016). The theory of servant leadership was created in 1977 by Robert Greenleaf to assist others and included both employees and the community (Lo et al., 2018). The 10 characteristics of servant leadership consist of being a good listener, empathy towards others, qualities of a healer, self-awareness, persuasiveness, conceptual thinking, foresight, stewardship, commitment to growth, and community building (Mareus et al., 2019).

Servant leadership and the related characteristics affect grit and performance. Servant leadership is a style of leadership that encourages leaders to empower employees with organizational resources to develop the full potential of employees (Eva et al., 2019). The theoretical framework addressed the research question on whether a statistically significant difference exists in grit level (dependent variable) between performance levels (high, middle, or low) for timeshare sales representatives. Grit theory and servant leadership created the theoretical foundation to view the study. Further elaboration will follow in Chapter 2.

## **Definitions of Terms**

Definition of the terms will provide a better understanding of the ideas and factors within the study, as well as how the concepts were used. The following are operational definitions for the dependent and independent variables. Additional definitions include terms, which may hold multiple meanings in the population.

*Age*. Age is the length of existence which extends from a starting point to any specified time such as the present (Merriam-Webster, n.d.). Age is an independent variable in the study and uses the categories of 18–25, 26–35, 36–49, and 50+.

*Gender*. Gender is an individual's perception of themselves and identity (Newman, 2018). Gender was an independent variable in the study and used the categories of male or female.

*Grit.* Grit is an individual's perseverance and passion to achieve long-term challenging goals (Duckworth et al., 2007). Grit level was determined using Duckworth's Grit-S. The total score of the Grit-S was the dependent variable.

**Performance Level.** Performance levels were volume per guest (VPG) determined by dividing the number of the salesperson's total sales volume by the number of sales presentations

completed (Timeshare Definitions and Terms, n.d.). Performance level was an independent variable in the study and used the categories of high (more than 5,000 VPG), middle (2,901-4,999 VPG), and low (less than 2,900 VPG).

*Servant Leadership.* Servant leadership is a method which allows leaders to empower employees with resources to reveal the full potential of subordinates (Eva et al., 2019).

*Timeshare.* A timeshare is a form of proprietorship of resort property for a specified amount of time (usually a week) each year (Cesaret et al., 2019).

## **Assumptions**

Quantitative research utilizes philosophical assumptions postpositivist in nature by employing surveys and experiments to test theories (Creswell, 2003). Post-positivistic research assumes social truth is quantifiable and identifiable, although difficult to access (Bisel & Adame, 2017). The study relied on obtaining data from timeshare sales representatives attending courses at a single training facility. An assumption is the participants used in the study were an accurate representation of timeshare sales representatives for medium-sized companies in the United States. Convenience sampling is a method where participants are chosen based on accessibility and assumes clear generalizability (Jager et al., 2017).

A quasi-experimental nonequivalent group design was the research design for the study.

An assumption was made groups were matched as closely as possible to avoid some other confounding variable being the reason for a possible statistically significant difference.

Assumptions were also made regarding data on age and gender, as well as archival data on sales performance, which was accurate and correct. A quasi-experimental design was assumed to be appropriate for the study because of previous use in researching grit levels. Research conducted on grit level and motivation use a quasi-experimental research design through quantitative

methods with inferential statistics (Bedford, 2017).

Data retrieved from surveys and historical data were analyzed through a three-way ANOVA to determine statistically significant differences. Six assumptions need to be judged to run a three-way ANOVA (Laerd Statistics, 2017). The first three assumptions were related to the study design and were as follows: (a) the dependent variable was continuous, (b) there were three independent variables with two or more categorical groups, and (c) each of the observations is independent of each other and had no relationship (Laerd Statistics, 2017). The remaining three assumptions were related to how the data corresponds to the ANOVA model and include: (d) absences of outliers, (e) normal distribution of the dependent variable, and (f) homogeneity of variances.

The Grit-S was used to collect data to determine the participant's grit level (see Appendix A). Development of the Grit scale permitted the measurement of grit traits and for participants to reflect on personal levels (Hochanadel & Finamore, 2015). An assumption was made the data provided was accurate and correct and participants were answering questions honestly based on personal thoughts and not on perceived correct answers. The Grit scale has been used to research various populations and validity evidence shows the 12-item self-report instrument is consistent with grit theory (Duckworth et al., 2007).

Assumptions are the foci for every theory and the explanation of each is critical in research methods used to test theories (Nkwake, 2013). An assumption was made the two sales lines utilized for the study have experienced the same level of training considering each was within the same organization. Aspects acknowledged as true, or at least possible, by researchers or those reading the research are the assumptions. The inferences drawn from the study can be influenced by the assumptions.

## **Scope and Delimitations**

Delimitations focus on the limitations and definitions set in the study, which act as boundaries, so the aims and objectives do not become unachievable (Theofanidis & Fountouki, 2018). The focus was on why certain actions were not taken rather than on those taken in the study. The course of study was chosen because of the high turnover rates and high costs resulting from the constant hiring and firing of sales representatives.

The focus of the study was concentrating on grit theory because grit theory has been found to behave possibly as a substitute for other measures used to predict sales performance (Rodriguez et al., 2019). The study consisted of participating subjects delimited to sales representatives located within one timeshare organization in the Central Florida region rather than several different ones. The time required to collect was significantly reduced by staying within one organization.

The quasi-experimental nonequivalent group design was chosen over other methods because of its previous use in researching grit levels. Research conducted on grit level and motivation use a quasi-experimental research design through quantitative methods with inferential statistics (Bedford, 2017). The use of the design seemed appropriate for the study.

Delimitations explain the scope of a study's foundation as the scope pertains to the design of the research (Theofanidis & Fountouki, 2018). The nature of delimitations is neither positive nor negative, but more of an explanation of reasoning. The study was delimited to one timeshare organization in Florida rather than including other resorts in other states within the organization. There were two sale lines within the same organization which will be used to select participants. The inclusion criteria for the sales representatives were a minimum of 6 months of employment in a sales position within the timeshare resort, male or female, and over the age of 18.

Delimitations for the study had a limited effect on the transferability of results because of the focus on the individual and not on the organizational culture or location.

## Limitations

The limitations within any research occur naturally because potential weaknesses are not controllable (Theofanidis & Fountouki, 2018). Limitations related to internal validity include the possibility participants were unable to fill out the survey immediately due to restrictions with social distancing. The scenario increased the likelihood of the survey being filled out without the participants providing full attention. Fortunately, the scenario was avoidable.

Limitations related to external validity included the reduced availability of timeshare sales representatives with experience available to participate in the study. Due to the COVID-19 pandemic, the workforce had been dramatically reduced. Considering the uniformity of the procedure and the fact the sales department was still within the same organization, the research was not affected. The limitations within a study represent weaknesses which may influence results and interpretations of the research (Ross & Zaidi, 2019).

External validity describes how the results of a study can be generalized outside the sample studied (Baldwin, 2018). The generalizability of the study was affected by the unequal sizes of the groups which violate normality and homogeneity. The use of a convenience sample from only one organization may limit the generalizability because the sample may not be representative of the population across the state or country. Establishing causation with the use of a quasi-experimental design was not possible because only testing for differences or determining if a relationship exists cannot be done without a true experimental design.

Sampling was a limitation because of the use of naturally occurring groups. No random assignment was possible so causality could not be established. Randomization is considered the

optimal way to establish a causal inference (Kim & Steiner, 2016). The Grit Scale was a self-reporting instrument so self-reporting bias also existed. Self-administered surveys do not allow any control or clarification of questions from participants (Theofanidis & Fountouki, 2018).

## **Chapter Summary**

An introduction and a specific overview have been provided for the proposed study. Grit, as an idea, originated in psychology research as an attempt to find methods to improve the lives of individuals (Dugan et al., 2018). The research was focused on the differences in grit level between performance level, gender, and age of timeshare sales representatives. The use of servant leadership in the timeshare sales arena may help with grit levels and indirectly influence sales performance levels. The problem was whether a difference exists between performance level, gender, and age of timeshare sales representatives in grit for medium-sized companies in the United States.

Research of the problem helped contribute knowledge on grit as grit pertains to sales since studies have focused more on academics than on career outcomes and sales. Studies in the future can focus on key areas for sales research on grit and aid in pinpointing relationships of grit in sales (Dugan et al., 2018). The purpose of the quantitative quasi-experimental nonequivalent group study was to test for statistically significant differences in grit level between performance level, gender, and age for timeshare sales representatives for a medium-sized timeshare company in the United States. A quantitative methodology was used to test for statistical differences and the research design was a quasi-experimental nonequivalent group design. A three-way ANOVA was used as the statistic test.

The research questions guided the study to establish statistically significant differences between variables along with null and alternative hypotheses. The theoretical framework was

guided by grit theory (Duckworth et al., 2007) and servant leadership (Greenleaf, 1977).

Operational definitions were given for variables as well as additional terms. Assumptions, scope and delimitations, and limitations were stated. The theoretical framework and a thorough preview of the research literature are presented in Chapter 2.

## **Chapter 2: Literature Review**

Grit is defined as an individual's perseverance and passion to achieve long-term goals (Duckworth et al., 2007; Reysen et al., 2019). A significant amount of attention has been given to grit as an important trait for success and performance (Lechner et al., 2019). The study was focused on the differences in grit level between performance level, gender, and age for medium-sized companies in the United States. The problem is the lack of knowledge of a difference in grit for performance level, gender, and age of timeshare sales representatives for medium-sized companies in the Unites States. The purpose of the quantitative quasi-experimental nonequivalent group study was to test for statistically significant differences in grit level between performance level, gender, and age for timeshare sales representatives for a medium-sized timeshare company in the United States.

Grit has been recognized as a dependable and correct predictor of retention (Eskreis-Winkler et al., 2014). Grit's power was tested in conjunction with additional personality traits at a timeshare company regarding predicting job retention (Duckworth, 2016) but little has been done to determine the role grit plays in sales performance. A relationship has been shown between grit and success in sales and substantiates further research to examine how grit shapes variables such as performance (Dugan et al., 2018). The theoretical framework for the study, a thorough preview of the research literature, and a summarization of the major themes in the literature will now be discussed.

## **Literature Search Strategy**

Advancing knowledge requires building on previously existing literature (Xiao & Watson, 2019). The literature search strategy began by identifying the keywords and concepts contained within the research questions for the study. The databases and search engines initially

used to develop the literature review included Google Scholar. Publications were restricted to only include publications from 2016 and on. Google Scholar also provided additional articles by viewing where each article was cited for related topics. The American College of Education (ACE) library was then used to locate full-text articles not available on Google Scholar and related research. Peer-reviewed articles were verified as such by searching for each reference in the ACE online library.

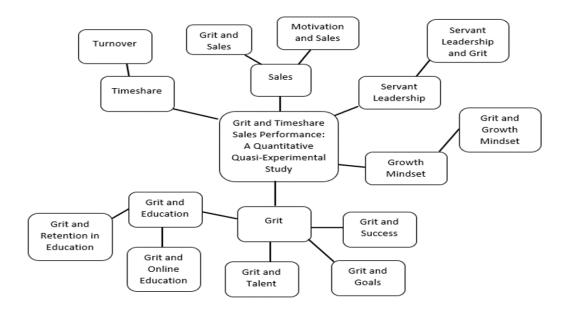
A literature search aims to report transparently while still being thorough and comprehensive so research can be duplicated (Cooper et al., 2018). The following keywords were used for the initial search: grit, sales, performance, servant leadership, timeshare, and sales performance. As the research progressed, the search terms were expanded to include grit and education, grit and sales, grit and success, grit and performance, servant leadership and grit, grit and growth mindset, grit in the workplace, grit and online education, and turnover costs. Figure 1 displays the key terms of the initial search and how they expanded as the search progressed.

## **Theoretical Framework**

The two theories guiding the study were grit theory (Duckworth et al., 2007) and servant leadership (Greenleaf, 1977). Grit was introduced and defined as an individual's perseverance and passion to achieve long-term challenging goals (Duckworth et al., 2007). Grit theory is the ability to maintain the same top-level goal for an extended period (Duckworth, 2016). A self-reporting questionnaire was established to determine grit levels defined as an individual's perseverance and passion for long-term goals (Duckworth et al., 2007). Higher grit levels have been associated with higher education levels, higher retention rates, and increased GPAs in higher education (Holdan et al., 2018).

Figure 1

Literature Search Strategy



The concept of servant leadership originated in 1977 by Robert Greenleaf as a model to serve others and included employees as well as members of the community (Lo et al., 2018). The 10 characteristics of servant leadership include: being a good listener, empathy towards others, qualities of a healer, self-awareness, persuasiveness, conceptual thinking, foresight, stewardship, commitment to growth, and community building (Mareus et al., 2019). Each of these characteristics can contribute to the success of individuals when used by management.

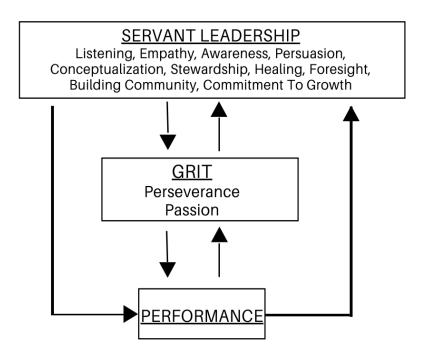
As demonstrated in Figure 2, servant leadership and the associated characteristics may affect both performance and grit. Servant leadership is an approach which allows leaders to empower employees with an organization's resources to bring out the full potential of subordinates (Eva et al., 2019). Grit can then be enhanced by reinforcing the drive and passion to persevere and meet goals which can help increase performance. Employee work performance has been shown to increase with managerial servant leadership influences in an organization

(Stollberger et al., 2019).

Servant leadership has been shown to have an indirect influence on organizational results such as performance (Eva et al., 2019). Using a servant leadership style within timeshare sales can help with grit levels and indirectly affect sales performance levels. Leaders who practice servant leadership can create an environment that generates learners with a growth mindset and grit (Chan, 2016). Considering grit has been used as a predictor for performance in other areas (Miller-Matero et al., 2018), grit may help predict success in timeshare sales. The theoretical framework addressed the research questions on whether a statistically significant difference exists in grit level (dependent variable) between performance levels (high, middle, or low) for timeshare sales representatives.

Figure 2

Grit and Servant Leadership Theoretical Framework



## **Research Literature Review**

The study was focused on the differences in grit level between performance level, gender, and age of timeshare sales representatives. Grit is defined as an individual's perseverance and passion to achieve long-term goals (Duckworth et al., 2007; Holdan et al., 2018; Reysen et al., 2019). The literature review provides insight and background information for the study, focusing on a review of the literature for the timeshare industry, grit, sales and performance, growth mindset, servant leadership, a counterargument, the research design, the gap in the literature, and a summary.

## **Timeshare Industry**

Timeshare involves the sale of ownership of exchange weeks buyers can sell or rent for private use (Sparks et al., 2007). Timeshare first appeared in Europe in 1963 with the purchase of several resorts by Alexander Nette and Dr. Guido Renggli, which were sold as part of a share program (Lasky, 2020). The beginning of the timeshare industry in the United States dates to the late 1960s and was established in Florida (Hicks & Walker, 2006).

Timeshare appeared in the real estate industry in response to the change in demand for residential real estate as the purchase of second homes began to rise in the United States (Roddewig & Brigden, 2019). Resorts Condominium International was formed as the first exchange company (Cesaret et al., 2019; Roddewig & Brigden, 2019) which allowed timeshare owners to exchange weeks and travel to other destinations. The success of the industry has been attributed to exchange timeshares and increases the choices available to owners (Cesaret et al., 2019). As the timeshare industry grew, a need for regulation grew and the outcome was the formation of the American Land Development Association (later named the American Resort Development Association) in 1989 (Roddewig & Brigden, 2019). The timeshare industry plays a

major role in the tourism industry and turnover can affect timeshare success.

## **Turnover in Timeshare**

The sales of a timeshare week are conducted in person by sales representatives who are judged on performance levels daily. Only a portion of the salespeople are at successful performance levels with some salespeople not successful, which leads to many leaving the company, either voluntarily or involuntarily. Timeshare sales have a high turnover rate, and high team member turnover elevates expenditures in assets, recruiting, and time (Cloutier et al., 2015; Hicks & Walker, 2006). Tourism industries, like timeshare, are subject to relatively high turnover for employees (Hicks & Walker, 2006). The substantial costs organizations sustain when salespeople leave are for training and replacement, loss of experience, and inconsistent performance (Mohapatra et al., 2017). Loss of income by the way of customers and loss of training investments are the result of salesperson turnover (Sunder et al., 2017).

The discrepancy in performance is a concern for the industry because of the high training costs and the cost associated with high levels of turnover related to low-performance levels.

Determining if grit is related to sales performance provides another avenue for training and recruiting successful salespeople. If salespeople have some degree of talent, training may help transform talent into positive results (Singh et al., 2015). Improved performance levels reduce the need to release nonperforming salespeople and incur additional costly recruitment and training. Determining a relationship between grit levels and performance levels contributes to the training process and possible improved levels of success for salespeople.

#### Grit

The question often arises as to why some individuals can accomplish more than others.

The concept of grit may contain the answer. Duckworth has spent years researching learning

from a motivational perspective and how those with grit were able to deal with setbacks and persevere (Chan, 2016; Duckworth, 2016; Holdan et al., 2018). Many of the findings determined individuals with grit were able to overcome obstacles and achieve new productive insights (Chan, 2016). Individuals with grit seek to achieve and push forward regardless of interferences and shortcomings (Holdan et al., 2018). Gritty individuals tend to view advances and accomplishments as a marathon instead of a quick sprint (Duckworth, 2016).

Grit is the ability to maintain certain goals for an extended period (Duckworth, 2016; Eskreis-Winkler et al., 2014; Holdan, et al., 2018). Individuals with grit look at achievements as a measure of endurance and can stay on track for long intervals if necessary (Holdan et al., 2018). The ability to persistently work towards high levels goals over stretches of time is another characteristic of grit (Eskreis-Winkler et al., 2014).

## The Grit Scale

The Original Grit Scale (Grit-O) was developed by Duckworth in 2007 (Duckworth et al., 2007) and is a 12-item Likert-type scale. An eight-question version of the Likert scale (Grit-S) was developed in 2009 to address the limitations of Grit-O (Datu et al., 2016). The Grit-S is used to collect data to determine a participant's grit level. The survey consists of 8 items and respondents answer the questions with very much like me, mostly like me, somewhat like me, not much like me, or not like me at all. Instrument scoring is as follows:

- 1. Questions 2,4,7, and 8 will have assigned point values as follows: (a) very much like me = 5 points, (b) mostly like me = 4 points, (c) somewhat like me = 3 points, (d) not much like me = 2 points, and (e) not like me at all = 1 point.
- 2. Questions 1,3,5, and 6 will have assigned point values as follows: (a) very much like me = 1 point, (b) mostly like me = 2 points, (c) somewhat like me = 3 points, (d) not

much like me = 4 points, and (e) not like me at all = 5 points.

- 3. All points will be added and then divided by 8.
- 4. The maximum score value showing high levels of grit is 5, and the lowest score value showing low levels of grit is 1 (Duckworth et al., 2007).

The quantitative data obtained from the Grit-S instrument determines the grit level for participants. Development of the Grit scale allowed for the measurement of grit characteristics and for individuals to reflect on personal levels (Hochanadel & Finamore, 2015). Two components measured for grit, passion, and perseverance, are determined from the responses in the self-reporting instrument and reflect how the participant sees themself now (Duckworth, 2016). Grit has been attributed to several topic areas which include education, success, talent, growth mindset, and sales.

## Grit and Education

Grit has been attributed to success in education (Duckworth, 2016; Hochanadel & Finamore, 2015; Reysen et al., 2019). Students were found to achieve higher grade point averages when there were grittier than other peers which suggests grit is linked to educational performance (Reysen et al., 2019). Studies on public school children found grit to be a predictor of graduation and students who did graduate were grittier (Duckworth, 2016). In the study on cadets at West Point, students accomplished goals based on grit more than any other traits held (Hochanadel & Finamore, 2015).

Individuals with more grit have been found to achieve higher degrees of education (Christopoulou et al., 2018; Duckworth, 2016). Grit has been associated with several aspects of education which include performance (in measures such as grade point average) and retention (Christopoulou et al., 2018). Adults with higher levels of grit have been more likely to get farther

in formal schooling than those with less grit (Duckworth, 2016). Students in postgraduate classes scored higher levels of grit when compared to those in undergraduate studies (Kannangara et al., 2018). Duckworth (as cited in McClendon et al., 2017) conducted a study on adults over the age of 25 and found adults with more education displayed higher grit levels.

Online education has increased dramatically in popularity (Buzzetto-Hollywood, Mitchell, et al., 2019; Cupitt & Golshan, 2015; McClendon et al., 2017). Higher levels of academic achievement have been tied in the literature to individuals of different ages and high levels of grit (McClendon et al., 2017). Increased levels of student achievement, when involved with online education, have been attributed to grit (Buzzetto-Hollywood, Mitchell, et al., 2019). Online learners are challenged with issues including digital divide, social isolation, and decreased teacher support which requires online learners to possess more grit to achieve success (Cupitt & Golshan, 2015).

#### Grit and Retention in Education

Grit has also been studied to determine its effect on retention levels in education in various areas (Bowman et al., 2019; Maddi et al., 2012; McClendon et al., 2017). To increase retention levels, many academic organizations are looking towards grit because grit has been tied to retention in educational programs (McClendon et al., 2017). The role of grit as a positive indicator of retention for first-year cadets at the United States Military Academy showed grit had a greater effect than other tested factors (Maddi et al., 2012). Grit, as one of several noncognitive factors, was found to impact social and academic outcomes (multi-institutional evidence) which may lead to greater retention versus previous studies which solely focused on college grades (Bowman et al., 2019).

Students in an online environment often stop trying and leave programs. A lack of grit

and a fixed mindset may be a contributor to the low rates of retention (Hochanadel & Finamore, 2015). Including teaching approaches which promote grit can help improve retention rates in online programs as well (Buzzetto-Hollywood, Quinn, et al., 2019). Results from a study conducted with first-year Hispanic students on grit as a predictor for retention provided mixed results: (a) Hispanic females who responded on a grit item as an inability to focus on long term project emerged as a retention predictor, (b) two grit variables are positively associated with retention for Hispanic males. The variables included interest changing from year to year and the ability to finish what the students began, and (c) students with the inability to maintain interest for long durations and during adversity (indicating lower grit levels) affected retention for the first year (Lopez & Horn, 2020).

## Grit and Talent

Talent is often used interchangeably with an individual's ability to achieve a task. Having talent is important but an individual's drive to persist is equally important (Bartz, 2018; Fitzgerald, 2016). Possessing talent will result in unmet potential unless effort is applied to transform talent into a skill (Duckworth, 2016). Success in schools and many other areas are dependent on more than just talent because the individual desires to follow through and complete a goal makes a difference (Fitzgerald, 2016). Grit and talent work together to boost development (Bartz, 2018). Without grit, talent may not generally be a major component in realizing long-term goals regardless of usefulness (Duckworth, 2016). Taking into consideration grit is as important as talent and has been shown to predict success, some may argue educational leaders should take the time and resources necessary to foster grit in learners (Chan, 2016).

## Grit and Goals

Many organizations encourage goal setting as a method to increase performance. Goal-

setting theory was created within industrial/organizational psychology and asserts the goals individuals make are directly related to task outcomes (Locke & Latham, 1990). Goals can be motivating if set at higher standards which are not easily attained, and the feelings of success are more meaningful (Locke & Latham, 2006). Setting goals is important for self-regulation and modification of behavior (Schippers et al., 2020). Grit is associated with high-level goal achievement because more effort and planning are involved to work towards the goals (Duckworth & Gross, 2014).

The modification of behavior in goal setting has been tied to grit (Kannangara et al., 2018; Maddi et al., 2012; Sheldon et al., 2015). Grit, compared to other personality strengths, was found to help individuals achieve the most goal fulfillment (Sheldon et al., 2015). An individual who possesses grit, a form of courage, can show effort and interest in moving towards the completion of long-term goals (Maddi et al., 2012). Students with grit are better able to identify long-term goals and push towards achieving objectives (Kannangara et al., 2018).

Without goals, students are unsure of the direction to head in. The lack of direction could be an explanation for the standards of many students who fall short in academic achievement (Schippers et al., 2020). Grit can be developed in an academic organization by assisting students in linking perseverance to longstanding goals instead of focusing on short-term motivators (Cupitt & Golshan, 2015). When the completion of lower-level goals is thwarted, gritty individuals can move past the obstacle and identify new low-level goals to achieve the same result (Duckworth, 2016). The capacity to complete a goal to the end regardless of how long the goal takes or the disappointments encountered is provided by grit (Reed & Jeremiah, 2017).

### Grit and Age

The connection between grit and age has been explored and results found a positive

correlation between age and grit (Cupitt & Golshan, 2015; Duckworth, 2016; Griffin et al., 2016; Kannangara et al., 2018). Studies have found students older than 31 years of age had higher grit scores than those between the ages of 18 and 21 which may be explained by the possibility of experiencing and overcoming more obstacles and setbacks in life (Kannangara et al., 2018). In a study of grit among substance abuse disorders, grit scores for older participants were higher than in other categories (Griffin et al., 2016). An examination of data from online students found participants under the age of 25 displayed lower levels of persistence of effort indicating lower grit scores (Cupitt & Golshan, 2015). A large sample of American adults showed adults in the late sixties were the grittiest while adults in the early twenties were the least gritty (Duckworth, 2016). The study will test for statistical differences in grit level for age and compare the results to previous findings.

### Grit and Gender

Studies on the relationship between grit and gender have generated mixed results. A mixed-methods study based on university students found a significant relationship between grit and gender (Kannangara et al., 2018). The study found female students have a higher chance of scoring high on the grit scale compared to male counterparts. Contradicting findings found males among undergraduates to be more emotionally stable with a positive correlation existing between grit and emotional stability (Flaming & Granato, 2017). Yet, in a study among substance abuse disorders, gender was not associated with Grit-S scores (Griffin et al., 2016). The study will test for statistical differences in grit level for gender and compare the results to previous findings.

### Grit Development

Grit can be described as a noncognitive skill (West et al., 2016) and can be developed over time (Duckworth, 2016; Jordan et al., 2019). A trait or skill like grit is influenced by

genetics and experience (Duckworth, 2016). The development of grit is possible if done with continuous practice and can be polished over time (Jordan et al., 2019).

In education, student grit can be fostered by teacher presence and course delivery through actions such as internships, interactions with professionals, experiential learning, project-based learning, and competency-based learning (Reed & Jeremiah, 2017). Each involves hope, purpose, practice, passion, and interest which are necessary components of grit. Grit may also be developed by encouraging self-regulation, self-control, and the capacity of achieving goals from the beginning to the end (Reed & Jeremiah, 2017). Involvement in organized additional activities which are challenging and encouraging may also promote grit (Duckworth, 2016). Developing the grit levels of salespersons could prove to be beneficial to organizations considering the links between grit and success.

### **Grit and Success**

Grit has been considered as a trait which attributes to success and performance levels (Danner et al., 2019; Duckworth, 2016; Eskreis-Winkler et al., 2014; Lechner et al., 2019; Reysen et al., 2019). Studies conducted have shown grit as an important factor for success and performance (Eskreis-Winkler et al., 2014; Lechner et al., 2019). When taking into consideration other factors and advantages which contribute to success, grit is significant in each (Duckworth, 2016). The ability to be more successful has been associated with persons who have a high level of grit because the individuals are motivated, focused on objectives, and cope well with setbacks (Danner et al., 2019). Learners who possess grit tend to endure despite obstacles because individuals are determined to be successful (McClendon et al., 2017).

Characteristics considered to determine success within the workplace have included grit as a contributing factor beyond cognitive skills. The actions and attributes which are considered

desirable in the workplace are encompassed by grit and include motivation with a strong desire to achieve goals (Reed & Jeremiah, 2017). Studies have verified grit incrementally can predict success, engagement, and achievement (Lechner et al., 2019; Vazsonyi et al., 2019). Individuals with higher levels of grit tend to put forth more effort and more focus than counterparts who are less gritty (Dugan et al., 2018). Considering how effective grit has been to be in the workplace, the same success may be applied to sales performance.

### Grit as a Mediator

Grit may act as a mediator between several trait variables and academic outcomes (Locke & Latham, 2002; Tang et al., 2019). For example, growth mindsets in students cause individuals to view delays and challenges as opportunities which increase persistence to achieve and deal with problems (Tang et al., 2019). The development of persistence and attention to coping with issues leads to achieving academic success (Dweck et al., 2014). As a result, grit may perform as a mediator between growth mindset and engagement and achievement in academics (Tang et al., 2019). Grit may also act as a mediator between goal commitment, school commitment, and academic success (Tang et al., 2019). Developing goals that are challenging requires a level of commitment to assist in staying on track and not abandoning the desired outcome (Locke & Latham, 2002).

### **Sales and Performance**

The varying performance levels of sales representatives is an issue which has been addressed because of its effect on an organization's success. The ability to keep talent is one of the biggest obstacles for sales managers (Rodriguez et al., 2019). Obtaining and defining methods to help salespeople improve performance levels contributes to organizational success (Madhani, 2017). The salesforce brings about sales which contributes to the wealth and value of

a company, making sales representatives a part of the human resource capital of the organization (Okwuraiwe et al., 2018). Determining whether grit can be utilized to increase sales performance in timeshare may assist in improving profitability within the industry.

#### **Grit and Sales**

Considering sales are associated with long sales cycles and challenges (Boichuk et al., 2014), grit would seem to positively impact performance. Individuals who were high in the perseverance aspect of grit performed better and were more satisfied with employment than those who were not as gritty (Dugan et al., 2018). Studies conducted to determine how grit affects sales performances have focused on different areas of sales and generated interesting results. Grit has been found to potentially act as a replacement for other measures used to predict sales performance (Rodriguez et al., 2019).

The topic of emotional exhaustion in sales is critical, because of the turnover which occurs as a result (Matthews & Edmondson, 2020). Emotional exhaustion can result in (a) physical symptoms which include headaches, stomach pains, and other physical ails, as well as (b) psychological symptoms which include lowered motivation and concentration, wavering emotions, and work decline (Bakar et al., 2020). Research conducted to investigate how sales organizations can reduce emotional exhaustion resulted in the conclusion when hiring salespersons, management can seek out those with grit and sales creativity (Matthews & Edmondson, 2020).

### **Growth Mindset**

Growth mindset theory is the belief an individual holds where one's initial qualities, such as talents and aptitudes, can be developed with efforts, approaches, and help from others (Dweck, 2006). Others believe characteristics such as intelligence cannot be improved by

mindset but do influence a student's ability to recuperate from failure, as well as increase a student's drive and investigative strategy (Kiger, 2017). Considering the negative response levels experienced in timeshare sales, the ability of an individual with a growth mindset to put energy into learning and, in turn, achieve higher performance levels is valuable.

An individual who possesses a growth mindset flourishes on challenges and considers setbacks as opportunities to gain knowledge from the feedback (Buzzetto-Hollywood, Mitchell, et al., 2019). Much of the literature on growth mindset theory is focused on an educational setting ranging from elementary school through college. The focus has been on academic improvement and how performance is affected or influenced by a mindset. In addition, mindset theory has been applied in the work setting regarding employee engagement.

### Growth Mindset and Performance

Academic performance has been shown to improve with the development of a growth mindset (Brougham & Kashubeck-West, 2017). Research was conducted to test whether grade point averages (GPAs), course credit attempts, and course completion were influenced by participation in online growth mindset interventions for incoming college students (Broda et al., 2018). The findings showed growth mindset intervention significantly improved grade point averages for Latino students and represented a 72 percent reduction in the grade point average gap between Caucasian and Latino students. High school students in a growth mindset intervention had grade point averages, and course passing rates improve compared to cohorts who did not receive the intervention (Yeager et al., 2016).

### Growth Mindset and Failure and Challenges

An individual who has a growth mindset is aware of personal shortcomings but is motivated by the idea of learning and growing to improve skills. A growth mindset is a notion an

individual can develop talents and capabilities (Grant et al., 2018). Entire organizations benefit from embracing a growth mindset because of the organization's employees' feelings of empowerment and commitment (Dweck, 2016).

Considering the negative response levels experienced in timeshare sales, the ability of an individual with a growth mindset to put energy into learning and, in turn, achieving higher performance levels is valuable. Research conducted to teach a growth mindset in an educational game by creating two versions of a game called *refraction*, hypothesized children playing the experimental version of *refraction* would display manners consistent with a growth mindset (O'Rourke et al., 2014). Students who were exposed to growth mindset strategies were more likely to show persistence and continued even after experiencing failure.

Drawing on theory and research in experiments, researchers found holding a growth mindset increases an employee's drive for development and enables employees to interpret failures and challenges to do better in the future (Keating & Heslin, 2015). Having a growth mindset was shown to act as a buffer against demotivation in challenging situations and reducing the impact on subsequent performance (Aditomo, 2015). A growth mindset entails realizing taking appropriate risks may not always lead to success and failure can be acceptable (Miller, 2020).

## Growth Mindset and Engagement

Research conducted on primary school children attempted to show the relationship of a growth mindset to psychological well-being and school engagement. The study conducted hypothesized having a growth mindset could predict a student's engagement and psychological welfare (Zeng et al., 2016). Results supported the hypothesis by stating both psychological welfare and school engagement levels increased when amounts of growth mindset in students

were enhanced. Research in the workplace has focused on having a growth mindset and its relation to employee engagement. Research was conducted to evaluate the interaction between employees' proactive personality, transformational leadership, and a growth mindset regarding engagement at work (Caniëls et al., 2018). As a result of the research, having a growth mindset was shown to be positively related to the work engagement of employees.

### **Mindset Interventions**

Many intervention studies have been performed resulting in positive and encouraging results, mostly with underprivileged or minority groups (Orosz et al., 2017). In a study conducted on African American college students, the results of the intervention displayed a significant change in the enjoyment levels of education, as well as higher grades (Aronson et al., 2002). Another experiment found exposing students to mindset training assisted in raising the grade point average of high school students who were at lower income levels or with a high risk of dropping out of school (Paunesku et al., 2015).

Interest in growth mindset interventions has increased (Burgoyne et al., 2018; Burnette et al., 2020). Studies have been conducted which attempt to determine if there is a link between a growth mindset and grit levels. Research was done to determine whether conducting an online intervention would change a participant's mindset of intelligence and grit (Burgoyne et al., 2018). Results found those who received the intervention displayed increased levels of growth mindset but there was no significant effect on grit. Undergraduate college students who participated in a growth mindset intervention effectively promoted entrepreneurial self-efficacy and improved tenacity on tasks despite challenges (Burnette et al., 2020). The result is beneficial for long-term goals which may have been a factor for grit growth.

#### Grit and Growth Mindset

The discussion of mindset often includes the concept of grit. Grit indicates high levels of stamina for specific interests and the effort used towards those interests (Eskreis-Winkler et al., 2014). Growth mindset and grit were found to be positively correlated in a sample of 81 students (Tucker-Drob et al., 2016). An interpretation of grit may be done within the framework of mindset theory because individuals with a growth mindset have a higher chance of striving for long-term goals regardless of the challenges which may arise (Burgoyne et al., 2018). Taking into consideration individuals who hold a fixed mindset, individuals are more likely to give up on long-term goals after dealing with setbacks because the setbacks are interpreted as personal shortcomings (Dweck & Leggett, 1988).

A series of three studies conducted on university students and graduates determined grittier students have an increased likelihood of higher levels of self-control, resilience, and growth mindset (Kannangara et al., 2018). Figure 3 demonstrates the main characteristics of languishing students versus thriving students (Kannangara, 2015). Languishing students hold a fixed mindset, devalue attributes and accomplishments, focus on weaknesses, possess a low grit level, and tend to give up before success can be achieved. Thriving students hold a growth mindset with the optimism to persist, focus on strengths, possess high grit levels. and tend to accept responsibility for actions which lead to achieving success. The figure compares how mindset, grit, and self-control strongly correlate with each other and contribute to student success (Kannangara et al., 2018).

Figure 3

Languishing Versus Thriving Students

Languishing Student	vs.	Thriving Student
Has a fixed mindset	VS.	Has a growth mindset
Devalues attributes and accomplishments	VS.	Persistent in the face of diversity
Focuses on weaknesses	VS.	Focuses on strengths
Low grit levels	VS.	High grit levels
Low self-control	vs.	Self-control

Many of the concepts linked to a growth mindset are like those of grit. Dweck and Duckworth have collaborated to develop an understanding of the reasons why some students persist until success, and others give up (Hochanadel & Finamore, 2015). Practices for building grit and growth mindset for online learning include five steps: (a) demonstrate examples of effectiveness, (b) setting high but achievable expectations, (c) participating in centered and aimed practice, (d) providing specific evaluation feedback, and (e) reflection and observations (McClendon et al., 2017). Grit and a growth mindset can encourage students to stay focused, continue educational goals, earn better grades, and strive to stay enrolled in educational programs (Buzzetto-Hollywood, Quinn, et al., 2019).

### **Servant Leadership**

The concept of servant leadership originated in 1977 by Robert Greenleaf as a model to serve others and included employees as well as members of the community (Lo et al., 2018).

Greenleaf introduced a distinguishing way to view leadership and has become a leadership example for many organizations to aspire to (Spears, 2010). Developing others for improvement

makes servant leadership an unorthodox concept because the emphasis is not on the heroic leader (Chan & So, 2017). Servant leadership can be a viewpoint, a set of leadership methods, and a set of leadership attributes (Allen et al., 2016).

Servant leadership consists of two major concepts which are services and other-oriented (Lo et al., 2018). The desire to use personal gifts to make a difference and make a positive change rather than displaying talents for all to see is the way a servant leader chooses to serve rather than impose (Wis, 2002). A servant leader leads to serve and serves as a part of leading (Chan, 2016). The other-oriented feature of servant leadership focuses on the interests and wellbeing of others (Lo et al., 2018). Servant leaders put the wants of others foremost, set aside personal progress, and assist others in succeeding (Allen et al., 2016).

Characteristics of servant leadership-oriented leaders include the following: being a good listener, empathy towards others, qualities of a healer, self-awareness, persuasiveness, conceptual thinking, foresight, stewardship, commitment to growth, and community building (Allen et al., 2016; Chan & So, 2017; Mareus et al., 2019; Spears, 2010). The characteristics are not exhaustive but serve as a guideline for expressing what servant leadership has to offer to any who are willing to accept the invitation and take on the challenge (Spears, 2010). Each of the ten characteristics was utilized in research to develop servant leadership characteristics in students attending secondary schools in Hong Kong (Chan & So, 2017).

Servant leadership has been compared to transformational leadership because of similarities between the two but there are comparative attributes: (a) servant leaders (SLs) focus on service to followers while transformational leaders (TLs) focus on the organizational goals, (b) SLs influence by service while TLs service by modeling, (c) SLs promote team building while TLs use persuasion, (d) SLs develop individually while TLs promote individualized

influence, and (e) SLs motivate by providing autonomy and resources while TLs motivate with charisma (Allen et al., 2016).

Evaluation of servant leadership has been conducted from several viewpoints in different areas. A study was conducted to demonstrate the significance of servant leadership in government which is an area where the leadership approach may not be expected to thrive (Mareus et al., 2019). Research was done with secondary school children in Hong Kong with results determining servant leadership is a suitable framework for character development (Chan & So, 2017).

Findings in a study performed with librarians in North America found a servant leadership management style assisted in elevating cohesion, collaboration, and creativity (Lo et al., 2018). In academic pharmacy, research on ideal leadership styles found both servant leadership and transformational leadership suitable for the field, dependent upon the needs of the specific environment and the skill set of the leader (Allen et al., 2016). Servant leaders can develop faculty, facilitate innovation, and assist in creating pharmacists with empathy for patients.

## **Servant Leadership and Grit**

Addressing how servant leadership and grit are related or affected by each other is important. Servant leadership defines success by the welfare and development of subordinates (Chan & So, 2017). Feeling supported and encouraged by a leader can lead to the development of the energy to persist and overcome challenges. A servant leader emulates a growth mindset and grit through the interactions experienced with others (Chan, 2016). The practice of servant leadership builds an environment for learners which fosters grit through support, respect, and demanding scenarios (Duckworth, 2016). Considering the characteristics of servant leaders

mentioned previously, the development of grit can occur in several ways: (a) creating or building a learning community under servant leader principles helps to cultivate a growth mindset and develop grit, (b) developing validity of leadership through listening, understanding, and healing encourages the led to take risks and persist for success, and (c) providing feedback and encouragement to promote reflection and improvements (Chan, 2016).

# Counterargument

Grit has received widespread attention, but some are critical of its influence on outcomes (Bazelais et al., 2018; Buzzetto-Hollywood, Quinn, et al., 2019; Ion et al., 2017). In online education, grit was found to have no significant effect on students' grades (Buzzetto-Hollywood, Quinn, et al., 2019). Studies conducted on the relationship between grit, growth mindset, and academic achievement found no association between the three (Bazelais et al., 2018). Findings indicate the significance and effect of grit in the workplace are reduced because the findings could not determine a relationship to work-related results (Ion et al., 2017).

The concept of grit has been disparaged by stating the concept is controversial and may undercut the quality of education (Anderson et al., 2016). Research has concluded a strong association between grit, retention, and performance is lacking (Credé et al., 2017). The same authors argue the methods in place for improving grit are not as effective in determining success as is believed.

### **Research Design**

The study will utilize a quantitative method to test for statistical differences in grit level between performance level, gender, and age for timeshare sales representatives. A quantitative methodology is a method of inquiry which utilizes surveys and numerical data (Creswell, 2003). The study will use surveys already established to ascertain a grit level and previous researchers

have approached similarly researching the problems. Most studies conducted on grit have utilized a quantitative research design. In a systematic review of the role of grit in education, 29 studies were reviewed and each of the studies used quantitative methods (with one exception) for data analysis (Christopoulou et al., 2018). The systematic review of grit in engineering education research found most studies, apart from seven out of 24, utilized quantitative methodologies to determine grit (Direito et al., 2019).

## Gap in the Literature

The study helped bridge a gap in the literature for grit. Studies on grit have concentrated on the education realm and have not measured success in other areas such as career outcomes (Ion et al., 2017; Lechner et al., 2019; Ma et al., 2020). A lack of attention exists between grit and results outside academic settings (Ma et al., 2020). Future studies should focus on pertinent areas for sales research on the grit construct and assist in identifying relationships of grit in sales (Dugan et al., 2018). An understanding of how grit adds to outcomes in occupations and has not been evaluated closely (Ion et al., 2017). Research focused on grit in sales in the workforce contributes to filling the gap in the literature.

## **Chapter Summary**

There is a wealth of research about grit theory (Duckworth et al., 2007), servant leadership (Greenleaf, 1977), and growth mindset theory (Dweck, 2006). Grit's power was tested in conjunction with additional personality traits at a timeshare company regarding predicting job retention (Duckworth, 2016) but little has been done to determine the role grit plays in sales performance. The study was focused on the differences in grit level between performance level, gender, and age of timeshare sales representatives. The discrepancy in performance is a concern for the industry because of the high training costs and the cost associated with high levels of

turnover related to low-performance levels. Determining if grit is related to sales performance provides another avenue for training and recruiting successful salespeople. The literature review provides insight and background information for the study, focusing on a review of the literature for the timeshare industry, grit, sales and performance, growth mindset, servant leadership, a counterargument, the research design, and the gap in the literature.

The two theories that guided the study were grit theory (Duckworth et al., 2007) and servant leadership theory (Greenleaf, 1977). Grit was introduced and defined as an individual's perseverance and passion to achieve long-term challenging goals (Duckworth et al., 2007). The concept of servant leadership originated in 1977 by Robert Greenleaf as a model to serve others and included employees as well as members of the community (Lo et al., 2018). The theoretical framework addressed the research questions on whether a statistically significant difference exists in grit level (dependent variable) between performance levels (high, middle, or low) for timeshare sales representatives.

Grit has been attributed to several topic areas which include education, success, talent, growth mindset, and sales. The practice of servant leadership builds an environment for learners which fosters grit through support, respect, and demanding scenarios (Duckworth, 2016). A lack of attention exists between grit and results outside academic settings (Ma et al., 2020). Future studies should focus on pertinent areas for sales research on the grit construct and assist in identifying relationships of grit in sales (Dugan et al., 2018). Research focused on grit in sales in the workforce will contribute to filling the gap in the literature. The research procedures, instrumentation, archival data, data collection and analysis, reliability, validity, and ethical procedures are presented in Chapter 3.

# **Chapter 3: Methodology**

Grit is defined as an individual's perseverance and passion to achieve long-term goals (Duckworth et al., 2007; Reysen et al., 2019). A significant amount of attention has been given to grit as an important trait for success and performance (Lechner et al., 2019). The study was focused on the differences in grit level between performance level, gender, and age for medium-sized companies in the United States. The problem is the lack of knowledge of a difference in grit for performance level, gender, and age of timeshare sales representatives for medium-sized companies in the Unites States. The purpose of the quantitative quasi-experimental nonequivalent group study was to test for statistically significant differences in grit level between performance level, gender, and age for timeshare sales representatives for a medium-sized timeshare company in the United States.

Research questions are used to embody what a study examines and reports (Thuan et al., 2019). For the proposed quantitative study, there were three independent variables (performance level, age, and gender) and one dependent variable (grit level). The following research questions and hypotheses guided the study to establish a relationship among variables:

Research Question 1: Does a statistically significant difference exist in grit level between performance levels (high, middle, or low) for timeshare sales representatives for a medium-sized timeshare company in the United States?

Research Question 2: Does a statistically significant difference exist in grit level between gender (male or female) for timeshare sales representatives for a medium-sized timeshare company in the United States?

Research Question 3: Does a statistically significant difference exist in grit level between ages (18–25, 26–35, 36–49, and 50+) for timeshare sales representatives for a medium-sized

timeshare company in the United States?

Research Question 4: Does an interaction effect exist of performance level (high, middle, or low), gender (male or female), and age (18–25, 26–35, 36–49, or 50+) of grit level exist for timeshare sales representatives for a medium-sized company in the United States?

Creating research questions is an important part of guiding growing knowledge in research (Thuan et al., 2019). In the quantitative study, there are three independent variables (performance level, age, and gender) and one dependent variable (grit level). To help answer the research questions, the following null and alternative hypotheses are formulated:

H<sub>10</sub>: A statistically significant difference does not exist in grit level between performance level (high, middle, or low) for timeshare sales representatives for a medium-sized company in the United States.

H1: A statistically significant difference does exist in grit level between performance level (high, middle, or low) for timeshare sales representatives for a medium-sized company in the United States.

H2<sub>0</sub>: A statistically significant difference does not exist in grit level between gender (male or female) for timeshare sales representatives for a medium-sized company in the United States.

H2: A statistically significant difference does exist in grit level between gender (male or female) for timeshare sales representatives for a medium-sized company in the United States.

H3<sub>0</sub>: A statistically significant difference does not exist in grit level between age (18–25, 26–35, 36–49, or 50+) for timeshare sales representatives for a medium-sized company in the United States.

H3: A statistically significant difference does exist in grit level between age (18-25, 26-

35, 36–49, or 50+) for timeshare sales representatives for a medium-sized company in the United States.

H4<sub>0</sub>: A significant interaction effect of performance level (high, middle, or low), gender (male or female), and age (18–25, 26–35, 36–49, or 50+) does not exist for grit level for timeshare sales representatives for a medium-sized company in the United States.

H4: A significant interaction effect of performance level (high, middle, or low), gender (male or female), and age (18–25, 26–35, 36–49, or 50+) does exist for grit level for timeshare sales representatives for a medium-sized company in the United States.

The focus of the chapter discusses the research methodology guiding the quantitative quasi-experimental nonequivalent groups study. Research design and rationale were supported by research. The role of the researcher will be discussed along with the selection of the population sample. The research procedures, instrumentation, archival data, data collection and analysis, reliability, validity, and ethical procedures will be explained.

### **Research Design and Rationale**

The study utilized a quantitative method to test for statistical differences in grit level between performance level, gender, and age for timeshare sales representatives. High grit levels are found in individuals who do not veer away from goals despite the lack of positive feedback (Duckworth & Quinn, 2009). A quantitative methodology is a method of inquiry that utilizes surveys and numerical data (Creswell, 2003). The study used surveys already established to ascertain a grit level.

The research design for the study was a quasi-experimental nonequivalent group design.

A three-way ANOVA ascertains if an interaction occurs between three independent factors on a dependent factor (Laerd Statistics, 2017). The statistics test was a three-way ANOVA to

determine if a three-way interaction effect exists between the independent variables of performance level (low, middle, high), age 18–25, 26–35, 36–49, and 50+), and gender (male vs female) in explaining grit levels (dependent variable). In situations where full control is not feasible, the usage of quasi-experimental designs enables the investigation of casualty and assists in the quest for knowledge (Grove, 2019).

The study sought to find if a statistically significant difference exists in grit level between performance level, age, and gender. Research conducted on grit level and motivation use a quasi-experimental research design through quantitative methods with inferential statistics (Bedford, 2017). Multiway ANOVA is usually used in experiments that highlight two or more factors to determine the indication for the existence of each of the factors, as well as the interactions (Cramer et al., 2016). Each research question and hypothesis in the study individually addressed the question of whether a statistically significant difference exists in grit level and each independent variable, as well as the interaction between the variables.

The amount of time available to collect the data was taken into consideration when choosing the research design. Surveys are frequently used in quantitative research (Creswell, 2014). The advantages of using surveys include cost effectiveness and the ease of data collection and management (Queirós et al., 2017). The survey format selected was the most conducive to collecting data in the amount of time allotted by the resort because of time constraints.

The three factors, or independent variables, were performance level, age, and gender with grit level as the dependent variable (DV). Performance level quantifiers were volume per guest (VPG) for 60 days and were calculated by dividing the salesperson's total sales volume by the number of sales presentations completed (Timeshare Definitions and Terms, n.d.). Sales performances were divided into three categories, which included high (more than 5,000 VPG),

middle2901-4999 VPG), and low (less than 2900 VPG).

Age was divided into groups of 18–25, 26–35, 36–49, and 50+ for the participants. Gender included either males or females. Grit level, the dependent variable, was determined using questions in Duckworth's Grit-S. The scale consisted of an eight-question Likert scale and was cross-sectional. The dependent variable, or the score from the Grit-S, was calculated using the mean average score from the eight questions making 5 the highest possible score. Cross-sectional surveys include data, which is collected at a single point in time (Creswell, 2014).

The four research questions addressed if a statistically significant difference exists in grit level between performance levels, age, and gender, as well as any interaction. The existence of statistical significance was determined using a three-way ANOVA for research questions one through three. Three-way ANOVA was used to determine if an interaction effect exists between the three factors (Laerd Statistics, 2017) and answered Research Question 4. All four research questions were answered by conducting one three-way ANOVA test.

### Role of the Researcher

Quantitative research requires impartiality and is suitable when collecting data and making inferences (Queirós et al., 2017). The role of the researcher was to evaluate electronic survey responses and work with the organization's training department to collect archival data on sales performance. Data were collected without influencing the respondents. The purpose of quantitative research is described as producing valid and unprejudiced inferences (Zyphur & Pierides, 2017).

Conflicts of interest did not exist because I had no direct relationship with the organization. Incentives were not offered to participate in the study. A reason to discourage compensating research participants exists if the compensation affects the long-term effectiveness

of a monetary enticement plan (Zutlevics, 2016). Participants were selected from areas, which were not directly connected to the individual conducting the recruiting.

To ensure the data were not compromised during the collection process, all procedures were strictly followed so the study may be duplicated in the future. Participants were ensured participation in the study would not affect future employment evaluations or considerations. Researchers who collect data in the workplace, have the responsibility of ensuring data is not compromised or participants are placed at risk (Creswell, 2014).

### **Research Procedures**

The study utilized a quantitative quasi-experimental design to test for statistical differences in grit between performance level, gender, and age for timeshare sales representatives for a medium-sized timeshare company in the United States. The following section describes the research-related activities done to achieve the purpose of the study. Population, sample selection, recruitment, participation, instrumentation, data collection, and data preparation are included in the descriptions.

## **Population and Sample Selection**

The target population is the group of individuals of interest in a study (Fisher & Fethney, 2016). The target population consisted of sales representatives from a timeshare resort in Central Florida, which is comprised of three resorts in the region. Discussions with upper management were completed for permission to use the sales force for the study (see Appendix B). The number of participants in the sample was approximately n = 69, which was calculated using G\*Power 3.1 and is discussed below. Participation in the study was voluntary.

Nonprobability sampling was used to determine the participants in the study. Researchers may individually choose the sample, which represents the population being studied using

nonprobability sampling rather than involving random selection (Etikan, Alkassim, et al., 2016). Sales representatives were selected based on the time worked at the company, which is a minimum of six months. Six months as a sales representative was considered by the training department as enough time for sales representatives to become acclimated with the training, sales presentation, and selling skills required for the position. Since the subjects were selected from naturally occurring sales line groups, a convenience sample will be used because of the availability of participants (Creswell, 2014).

The sample size for the study was determined using G\*Power 3.1 (see Appendix A) and included approximately 69 sales representatives. Data were entered for an f test for an ANOVA using A priori power analysis. Estimation of the sample size used an alpha of .05 and the standard power of 80% (Malone et al., 2016). The effect size was set at .5, with a confidence level of 95%. The power for the study was set at .8 with degrees of freedom of 8 and the number of groups as 9.

Demographical and geographical characteristics are standard inclusion criteria (Patino & Ferreira, 2018). The inclusion criteria for the sales representatives were a minimum of six months of employment in a sales position within the timeshare resort, male or female, and over the age of 18. Confusing variables that may influence study results and exclude an individual from the study are exclusion criteria (Connelly, 2020). Exclusion criteria included a response to a gender other than male or female and any missing data. Site permission was requested from the Regional Vice President of Sales of the resort in a permission letter (see Appendix B). The letter was signed and returned.

Recruitment begins with the identification of potential participants for research (Patel et al., 2003). The selection of participants was narrowed down with the assistance of the resort's

training department to sales representatives in a sales position for a minimum of six months. As a form of nonprobability sampling, the participants are selected based on availability rather than random selection (Etikan, Musa, et al., 2016). Selected potential participants were read a recruitment letter from the training department within the resort (see Appendix C).

The sales representatives who choose to participate will be able to do so after reading and signing informed consent (see Appendix D). Informed consent is the groundwork for the ethical process because informed refusal is implied (Zhang & Liu, 2018). Important information is provided to possible participants through informed consent and allows rational and informed decisions to be made (Kadam, 2017). Once the informed consent was signed, the participant was provided the link to the 5-minute Grit-S on SurveyMonkey. Demographic information on age and gender was included in the survey along with questions to determine grit level. Instructions on how to complete the survey were explained when opening the instrument in SurveyMonkey.

### Instrumentation

The Grit-S was used to collect data to determine the participant's grit level (see Appendix E). Grit level results align with the research questions which seek to find a statistically significant difference between grit levels and the independent variables (performance level, age, and gender). The first Grit Scale (Grit-O) was developed as a 12-item Likert-type scale (Duckworth et al., 2007). An eight-question version of the Likert scale (Grit-S) was developed in 2009 to address the limitations of Grit-O (Datu et al., 2016). The survey consisted of 8 items and respondents answered the questions with very much like me, mostly like me, somewhat like me, not much like me, or not like me at all. Instrument scoring is as follows:

1. Questions 2,4,7, and 8 will have assigned point values as follows: (a) very much like me = 5 points, (b) mostly like me = 4 points, (c) somewhat like me = 3 points, (d) not

- much like me = 2 points, and (e) not like me at all = 1 point.
- 2. Questions 1,3,5, and 6 will have assigned point values as follows: (a) very much like me = 1 point, (b) mostly like me = 2 points, (c) somewhat like me = 3 points, (d) not much like me = 4 points, and (e) not like me at all = 5 points.
- 3. All points will be added and then divided by 8.
- 4. The maximum score value showing high levels of grit is 5, and the lowest score value showing low levels of grit is 1 (Duckworth et al., 2007).

The quantitative data obtained from the instrument determined the grit level for each participant. The results were used to test for statistical differences in grit levels between performance level, gender, and age. Development of the Grit scale allowed for the measurement of grit characteristics and for individuals to reflect on personal levels (Hochanadel & Finamore, 2015). Participants completed the survey independently, and scores were tabulated manually. The time allotted for completing the instruments was 5 minutes. Obtaining permission to use the instrument was not necessary. The author's website states researchers and educators can use the scale if not used for commercial purposes (see Appendix F). The scale was free and publicly available.

Evidence of reliability for the Grit Scale is shown in a Cronbach alpha at .85 (Duckworth et al., 2007). The factors of the scale have been tested in other research and show acceptable Cronbach values, even when adapted to other contexts (Marentes-Castillo et al., 2019). Validity evidence shows the 12-item self-report instrument is consistent with grit theory (Duckworth et al., 2007). Research has been conducted on various populations using the Grit Scale. Duckworth (as cited in McClendon et al., 2017) conducted a study on adults over the age of 25 and found adults with more education displayed higher grit levels.

### **Archival Data**

Gaining access to archival sites is done by requesting the consent of individuals at the site, which allows access and research to be completed (Creswell, 2014). Participants were selected based on the length of time (over six months) employed as a sales representative. The information was obtained from the resort's training department. Selected potential participants (assigned a participant number for anonymity) were read recruitment letters from the individual conducting the study within the resort. Sales representatives who choose to participate were given informed consent to sign. Participants were provided a link to complete the Grit-S online using SurveyMonkey, which provided information on grit levels, age, and gender. Surveys are the most used technique in quantitative research because responses to questions reflect the views and actions of individuals (Queirós et al., 2017).

Site permission for the study and access to data were sent to the Vice President of Sales for a resort in Central Florida (see Appendix B). The site permission was sent back signed. Archival data is information that has been collected by others at a previous date (Jones, 2010). Historical sales performance data were obtained from the training department for each participant after completing the survey. The sales performance data were entered in an Excel spreadsheet with the corresponding participant number along with data obtained from the online Grit-S survey.

Archival data may come from databases assembled for a purpose other than research (Barnes et al., 2018). Historical sales performance data were obtained from the resort's training department for a 60-day interval and included sales volume per guest. Sales performance was maintained by resort management and was recorded in the company database daily. The information was consistent, reliable, and used at levels within the organization. The availability

of transparency with archival data is possible because the information can be retrieved by others who want to replicate studies (Barnes et al., 2018).

### **Data Collection**

After receiving approval from the American College of Education's Institutional Review Board, the training department was contacted to determine which sales representatives fit the selection criteria of six months. Sales representatives were read recruitment letters. Recruitment involves creating interest from prospective participants in the proposed research (Patel et al., 2003). The organization may send follow-up emails should participation be poor.

Willing participants immediately read and sign informed consent which was collected by the same individual. Participants were assigned a participant number and received a link to complete the Grit-S on SurveyMonkey. Each participant inputted their participant number. The information was downloaded onto an Excel spreadsheet. The use of survey products such as SurveyMonkey allows the generation of descriptive statistics, which can be downloaded (Creswell, 2014). Data from the survey was matched with archival data obtained from the organization's training department using the participant number assigned during participant selection.

Data obtained from participants will be stored on an external hard drive and placed in a locked safe for storage for 5 years after the completion of the study (American College of Education, 2018). The online survey provided confidentiality for the participants because each used a participant number and not a name. The information was not accessed by anyone other than the individual conducting the study. After 5 years, the data will be destroyed. Debriefing procedures were not necessary because the participants completed the survey and exited the SurveyMonkey site. Follow-up procedures were not applicable because the initial collection of

data were sufficient for the study.

Data collected was entered into an Excel spreadsheet to prepare for entry into the most current version of Statistical Package for Social Sciences (SPSS) for analysis. Missing data points on any of the entries eliminated the participant from the study. The issue of missing values is commonplace in statistical work, especially when dealing with human subjects (Molenberghs & Verbeke, 2013). Any missing values in the spreadsheet were highlighted to avoid confusion or misuse of data. The Excel spreadsheet contained data points for each participant which included participant number, performance level (low, medium, or high), age (18–25, 26–35, 36–49, or 50+), gender (male or female), and grit level (1 through 5).

Data collected for testing was entered into an Excel spreadsheet. The columns were labeled with the following headings: participant number, performance level, age, gender, and grit level (see Table 1). Each data point was entered in the respective cell. Participants with any missing data points were excluded from the study. The spreadsheet was used to enter variable information into the most current version of SPSS statistics.

**Table 1**Format of Excel Spreadsheet with Data

Participant	Performance level	Age	Gender	Grit level (1–5)
1	Low	18–25	Female	3.5
2	High	36–49	Male	4.2
3	Low	50+	Male	2.8
4	Medium	26–35	Male	2.1
5	High	36–49	Female	1.7

### **Data Analysis**

Descriptive statistics define the characteristics of the data and give synopses about the sample (Mishra et al., 2019). The descriptive statistics which were used included pie charts on the number of men and women and ages by groups. Statistics on performance and whether levels were high, medium, or low were also included.

Data cleaning involves the process of finding and fixing data because failing to do so may lead to inaccurate analysis (Chu et al., 2016). The set-up of data in the excel spreadsheet allowed for missing data to be observed immediately. Missing data may make require looking back at surveys to obtain the information (Deller, 2019).

The examination of numerical information for quantitative research is done through statistical procedures, which often use the most current version of SPSS statistics, R, or Stata (Queirós et al., 2017). The information from the survey and historical data were analyzed using the most current version of SPSS Statistics. SPSS is a windows-based software package that can be used for statistical examination by education researchers in social science (Kumar, 2019). Data for hypotheses 1–3 (significant differences) and hypothesis 4 (significant interactions) was run through a three-way ANOVA, which is used to ascertain how a response is influenced by three factors. A between-groups ANOVA was used to test for statistically significant differences between the independent variables (performance level, age, and gender) on the dependent variable (grit level). The ANOVA tested for statistically significant interaction effects between all groups each way they could be compared. The appropriate post hoc tests such as effect size, estimated power, and pair-wise comparison were conducted, as necessary.

Six assumptions needed to be judged to run a three-way ANOVA (Laerd Statistics, 2017). The first three assumptions were related to the study design. The assumptions were as

follows: (a) the dependent variable was continuous, (b) there were three independent variables with two or more categorical groups, and (c) each of the observations was independent of each other and had no relationship (Laerd Statistics, 2017).

The next three assumptions for a three-way ANOVA were related to how the data fits the ANOVA model. The fourth assumption was the data does not contain outliers in any cell of the design. Outliers are defined as observations within a dataset whose pattern is distinct from most of the other observations (Hadi & Imon, 2018). Boxplots were created in the most current version of SPSS statistics to determine if there were any outliers in the data. As an information-rich graphic, boxplots visually display the important features of a dataset (Nuzzo, 2016).

The fifth assumption of a three-way ANOVA is the normal distribution of the dependent variable in every cell. One of the most common methods for testing normality is using the Shapiro–Wilk test of normality (Laerd Statistics, 2017). The test was done in the most current version of SPSS. The equal variance of the dependent variable in each cell of the design is the sixth and final assumption for a three-way ANOVA. The assumption is referred to as the assumption of homogeneity of variances and is tested using Levene's test (Laerd Statistics, 2017). Levene's test is considered the easiest and most used to determine equality of variance (Hosken et al., 2018). Any appropriate post hoc tests were conducted after conclusions are made.

### **Reliability and Validity**

External validity describes how the results of a study can be generalized outside the sample studied (Baldwin, 2018). Possible threats to external validity were the availability of sales representatives with experience due to the pandemic, which had shut down most of the hospitality industry. Surveys did not need to be distributed to more than one sales department.

Internal validity describes the extent to which inferences can be drawn about the

population given the procedures, treatments, or experiences of the participants in a study (Creswell, 2014). Instrumentation decay may occur if the administration of the instrument changes over time (Baldwin, 2018). Participants received the instrumentation in the same manner (online) and took less than 5 minutes to complete to prevent fatigue. Subject characteristic threats occur when participant selection causes differences between groups and causes bias selection (Baldwin, 2018). Participant selection was based solely on having worked for over six months as a sales representative to prevent selection bias.

The reliability of a study refers to whether the results can be reproduced consistently over time (Pauluzzo, 2020). The data collected on the grit (DV), age, performance level, and gender from the Grit-S survey can be duplicated. Performance level data obtained from the resort for the previous 60-day time span for sales can be reproduced at other resorts for research. Replication of the study is possible in other timeshare resorts to test for statistical differences in grit level between performance level, gender, and age for timeshare sales representatives.

The ability to be impartial and free from bias, which can affect trust is objectivity (Lindhult, 2019). A critical aspect of capable research is the ability to be objective (Creswell, 2014). Objectivity was not a threat to the study. All participant names were coded for anonymity. Results from the Grit-S were not shared with anyone in authority over the participants.

### **Ethical Procedures**

Measures were taken to ensure the human participants were protected from any harm. Data from the surveys was coded to protect participants and provide anonymity. Anonymity protects the privacy of the voluntary participants in research (Allen, 2017). Upholding the three ethical principles of beneficence, respect for others, and justice is vital for research (Office for Human Research Protections, 2018). Participants were treated fairly and with kindness and

respect.

Informed consent is the groundwork for the ethical process because informed refusal is implied (Zhang & Liu, 2018). Participants received informed consent (see Appendix D) upon choosing to participate in the study. Once the informed consent was signed, participants were directed to SurveyMonkey to complete the Grit-S (see Appendix E).

Archival data is information which has been collected by others at a previous date (Jones, 2010). Sales performance archival data were collected from the training department for each participant once the survey was completed. An Excel spreadsheet contained the sales performance data with the corresponding participant number along with data obtained from the online Grit-S survey. Data obtained from participants was stored on an external hard drive and placed in a locked safe for storage for 5 years after the completion of the study (American College of Education, 2018).

Ethical violations occur when significant conflicts of interest are not disclosed (Wallace et al., 2020). Conflicts of interest did not exist within the organization. Participants were not connected to the individual conducting the recruiting. All participant names were coded for anonymity. Results from the Grit-S were not shared with anyone in authority over the participants.

### **Chapter Summary**

The methodology proposed in the chapter was a quantitative quasi-experimental nonequivalent group study designed to address the research questions to determine if there is a statistically significant difference in grit level between performance level, gender, and age for timeshare sales representatives. Grit is defined as an individual's perseverance and passion to achieve long-term goals (Duckworth et al., 2007). Three independent variables (performance

level, age, and gender) and one dependent variable (grit level) have been described. A survey methodology was used to collect data and a three-way ANOVA was used to examine the data using the most current version of SPSS statistics. Surveys allow for cost-effective data collection which is not affected by the subjectivity of the individual doing the research (Queirós et al., 2017).

The target population consisted of sales representatives from a timeshare resort in Central Florida and the number of participants was 62. As a form of nonprobability sampling, the participants are selected based on availability rather than random selection (Etikan, Alkassim, et al., 2016). Within the chapter, the research design, design appropriateness, population and sample selection, instrumentation, archival data, data collection, data analysis, reliability and validity, and ethical procedures are described. The analysis of the data and findings are presented in Chapter 4.

# **Chapter 4: Research Findings and Data Analysis Results**

In the pursuit of long-term goals, grit is suggested to be a trait that is comprised of passion and persistence (Tang et al., 2021). The same traits are considered important in the timeshare sales arena. Grit as a forecaster of success can be useful in increasing sales performance levels considering businesses tend to contribute to an organization's expenditure on salesforce training and development (Madhani, 2017). The study was focused on the differences in grit level between performance level, gender, and age for medium-sized companies in the United States.

The problem was whether performance level, age, and gender of timeshare sales representatives cause a difference in grit for medium-sized companies in the United States. The purpose of the quantitative quasi-experimental nonequivalent group study was to test for statistical differences in grit level between performance level, gender, and age for timeshare sales representatives for a medium-sized timeshare company in the United States. The data collection process, data analysis, results, reliability, and validity research will be discussed in the following sections.

#### **Data Collection**

The collection of data, as well as processing, can be managed with vigilant data management practices (Ienca & Vayena, 2020). The resort's training department staff helped to narrow the pool of eligible participants by identifying sales representatives serving in a sales position for a minimum of six months, which was the inclusion criteria. The recruitment letter (see Appendix C) specifics were stated verbally in a meeting to comply with social distancing requirements. After the meeting, sales representatives who chose to participate were immediately given informed consent (see Appendix D) to sign and assigned a number for anonymity.

Participants had the option to provide informed consent in the meeting room or privately in another room. Once the informed consent form was signed and returned, the participant was immediately provided the link to the 5-minute Grit-S on SurveyMonkey by scanning a QR code. Respondents were not restricted to any specific area to complete the survey; they could participate in any location they chose.

# **Demographics**

Demographic information on age and gender were included in the survey along with grit level. SurveyMonkey is an application which provides customizable surveys that include analyzing information, removal of bias, and methods of exporting the data representation (Abd Halim et al., 2018). Instructions on how to complete the survey were included in the opening screen of the instrument (see Appendix E) in SurveyMonkey. Data collection was conducted for 2 weeks at three different resort properties in Central Florida. A total of 63 participants provided informed consent and 62 completed the survey in SurveyMonkey. The use of the QR code simplified access to the online survey and may have contributed to the high response rate. The QR code could only be used once from each device. Completion time for the online survey averaged 1 minute and 55 seconds.

The Covid-19 pandemic necessitated deviations from the initial data collection plan. Social distancing changed how the information on the recruitment letter was relayed. The letter was read to the group rather than handing each person a sheet. Many researchers working on research have had to change their data collection methods because of social distancing restrictions (Lobe et al., 2020). A QR code was used to access the survey rather than using paper with a link and reduced physical contact.

Of the 63 participants who completed informed consent from the three resorts, 62

completed the online survey. The popularity of online surveys for data collection for educational research has increased the need for swift responses and dependable findings (Saleh & Bista, 2017). Table 2 provides a summary of the number of participants from each of the three resorts. A handwritten log was used to track the participant numbers with the respective resort and was transferred to an Excel spreadsheet with the data collected. Tracking resorts made it easier to locate performance numbers which were in individual reports per property.

Table 2

Participant Informed Consent and Survey Completion by Resort

Resort	No. participants providing Informed consent	No. participants completing the survey
1	28	27
2	26	26
3	9	9
Total	63	62

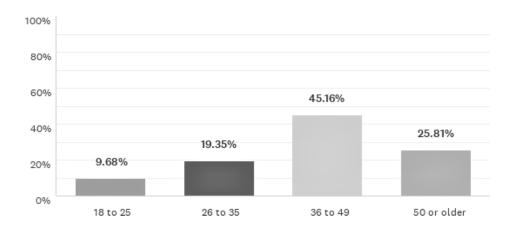
The anticipated sample size for the target population of sales representatives from a timeshare resort in Central Florida was 69. Research not related to Covid-19 has decreased and has created restrictions on the productivity of businesses (Omary et al., 2020). A change in workforce composition reduced the available number of participants, who met the 6-month criteria and were willing to participate to 62 sales representatives. The number of recipients meeting the 6-month minimum requirement was affected by the Covid-19 pandemic because many sales representatives moved on to other companies or careers during the shutdown. Many organizations reduced their sales staff because the sales presentations had not returned to pre-

Covid numbers. Data collection did not deviate from procedures and collection was left open for an extended time.

Demographic information (participant number, age, and gender) was collected in the survey. The first demographic question in the survey was the assigned participant number which ranged from 1 to 63. Each informed consent form contained a number. When the form was returned, the participant was advised to use that number on the survey for anonymity. The second demographic question in the survey asked the participant for their age range. Age categories were: 18–25, 26–35, 36–49, and 50+ for the participants. Figure 4 displays the distribution of the age ranges of the 62 participants. Demographic variables can be used to demonstrate if a validated model can be used for several groups of participants (Paquette et al., 2020).

Figure 4

Demographic Data for Age Categories



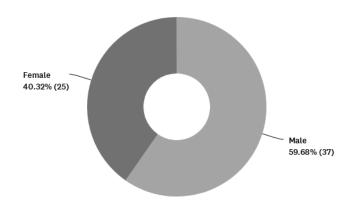
The second demographic question in the survey asked the participant to choose a gender.

Gender categories included either male or female. Some variables may cause challenges in the

collection process because of their sensitive nature (Paquette et al., 2020). Challenges were avoided by assigned participant numbers to ensure anonymity. Figure 5 displays the illustration of gender categories for the 62 participants in the study.

Figure 5

Demographic Data for Gender Categories



# **Data Analysis and Results**

Data for performance level, age, and gender were collected from SurveyMonkey along with the point values on the Grit Scale. All the data collected was placed into an Excel spreadsheet (see Appendix G) and prepared for input into SPSS for analysis. The Excel spreadsheet (see Appendix G) contained data points for each participant which included participant number, performance level (low, medium, or high), age (18–25, 26–35, 36–49, or 50+), gender (male or female), and grit level (1 through 5). Grit level for each participant was calculated by taking the point values in SurveyMonkey for all 8 questions and dividing by eight as instructed in the Grit-S instructions (see Appendix E). The maximum possible score on the scale was 5 *extremely gritty*, and the lowest possible score on the scale was 1 *not at all gritty*.

Missing data can diminish the validity of results and create questions in the analyses and

explanation of findings (Pedersen, et al., 2017). Participants provided all data and ratings requested; no data were missing; therefore, no participant data were excluded. Questions in SurveyMonkey displayed an error message stating a question required an answer if a response was not selected and contributed to no missing data.

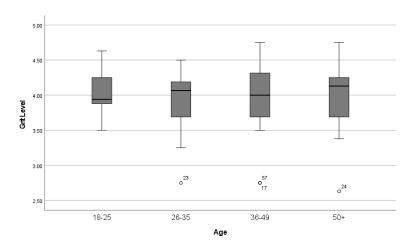
# **Assumptions**

A three-way ANOVA requires the evaluation of six assumptions (Laerd Statistics, 2017). The first three assumptions are related to the study design. The assumptions were found to be as follows: (a) the dependent variable (grit level) for the study was treated as continuous (De Winter & Dodou, 2012; Norman, 2010), (b) the three independent variables do contain two or more categorical groups, and (c) each of the observations was found to be independent of each other and has no relationship.

The fourth assumption was the data did not contain outliers in any cell of the design.

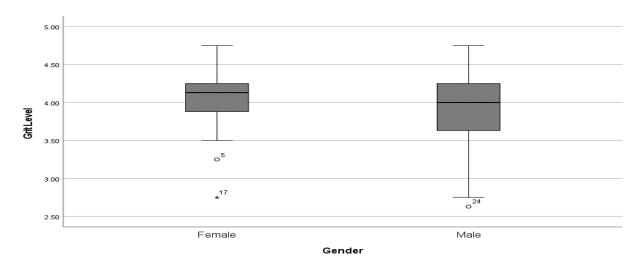
Outliers are described as observations in a dataset which display a pattern that is dissimilar from most of the other observations (Hadi & Imon, 2018). Boxplots were generated to determine if outliers existed in the data set. Four outliers (Participant 23, 57, 17, and 24) appeared in the data as assessed by inspection of the boxplots generated for grit levels and age (see Figure 6).

**Figure 6**Boxplot for Grit Level and Age



Outliers are viewed as observations distant from the other data points or which have many variations in the sample (Aslam, 2020). A boxplot was generated to determine if outliers existed in the data set for grit level and gender. Two outliers (Participant 5 and 24) and one extreme point (Participant 17) appeared in the data as assessed by inspection of the boxplot generated (see Figure 7).

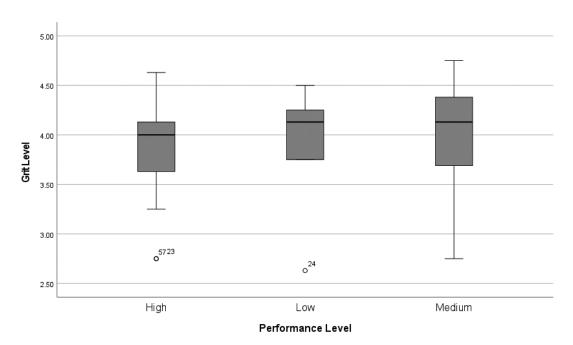
**Figure 7**Boxplot for Grit Level and Gender



Forecasting and estimating data can be affected when an outlier is present (Aslam, 2020). A boxplot was generated to determine if outliers existed in the data set for grit level and performance. Five outliers appeared in the data as assessed by inspection of the boxplots generated (see Figure 8). A total of four outliers (Participant 5, 23, 24, and 57) and one extreme point (Participant 17) appeared in the boxplots for data sets for grit level, age, gender, and performance level. The outliers and extreme point were removed, and tests were run for normality and homogeneity. Removal of extreme outliers should be eliminated from the data for accurate analysis (Aslam, 2020).

Figure 8

Boxplot for Grit Level and Performance Level



The next step was to evaluate the fifth assumption to determine if the data were normally distributed. Although various methods are available to test whether continuous data is normally distributed, one of the two most widely used methods is the Shapiro–Wilk test (Mishra et al., 2019). The test was completed in SPSS (see Table 3). The assumption of normality is violated if

the significance level is less than .05 (Laerd Statistics, 2017). All categories were normally distributed (p > .05) as assessed by Shapiro–Wilk's test of normality (see Table 3). Data analysis proceeded to determine homogeneity.

**Table 3**Shapiro-Wilk Results of Grit Level for Age, Gender, and Performance Level

Independent variable	Shapiro–Wilk Test				
	Statistic	df	Sig.		
Age					
18–25	.962	6	.838		
26–35	.946	10	.623		
36–49	.963	26	.461		
50+	.945	15	.446		
Gender					
Female	.974	34	.594		
Male	.966	23	.597		
Performance level					
High	.896	7	.306		
Low	.948	23	.270		
Medium	.961	27	.400		

*Note.* Dependent variable: grit level.

The last and final assumption for a three-way ANOVA is the assumption of homogeneity of variances for each combination, which is tested using Levene's test (Laerd Statistics, 2017). A significance level of .05 was used with a confidence interval of 95%. Levene's test is considered the top method of comparing and is robust to digressions from normality (Hosken et al., 2018). The statistical significance level was .037 (p < .05) which indicates that Levene's test is statistically significant. The assumption of homogeneity of variances was violated, as assessed

by Levene's test for equality of variances, p = .037. The three-way ANOVA is robust to violations of normality which allows the assumption of homogeneity to be violated and still provide valid results (Laerd Statistics, 2017). Considering the robustness of an ANOVA, the analysis continued to the research questions. The results of the test are displayed in Table 4.

 Table 4

 Levene's Test of Equality of Error Variances for Grit Level

Variable	Levene statistic	df1	df	Sig.
Grit level based on mean	2.126	12	40	.037

# **Research Questions and Hypotheses**

An important step in guiding knowledge growth in research is by creating research questions (Thuan et al., 2019). In the quantitative study, there are three independent variables (performance level, age, and gender) and one dependent variable (grit level). The following research questions guided the quasi-experimental study to identify statistically significant differences among variables:

Research Question 1: Does a statistically significant difference exist in grit level between performance levels (high, middle, or low) for timeshare sales representatives for a medium-sized timeshare company in the United States?

Research Question 2: Does a statistically significant difference exist in grit level between gender (male or female) for timeshare sales representatives for a medium-sized timeshare company in the United States?

Research Question 3: Does a statistically significant difference exist in grit level between ages (18–25, 26–35, 36–49, and 50+) for timeshare sales representatives for a medium-sized

timeshare company in the United States?

Research Question 4: Does an interaction effect of performance level (high, middle, or low), gender (male or female), and age (18–25, 26–35, 36–49, or 50+) of grit level exist for timeshare sales representatives for a medium-sized company in the United States?

Researchers are presented with formulating hypotheses derived from a theory and devising a study to test them (Scheel et al., 2021). In the quantitative study, there are three independent variables (performance level, age, and gender) and one dependent variable (grit level). To assist in answering the research questions, the following null and alternative hypotheses were formulated:

H<sub>10</sub>: A statistically significant difference does not exist in grit level between performance level (high, middle, or low) for timeshare sales representatives for a medium-sized company in the United States.

H1: A statistically significant difference does exist in grit level between performance level (high, middle, or low) for timeshare sales representatives for a medium-sized company in the United States.

H2<sub>0</sub>: A statistically significant difference does not exist in grit level between gender (male or female) for timeshare sales representatives for a medium-sized company in the United States.

H2: A statistically significant difference does exist in grit level between gender (male or female) for timeshare sales representatives for a medium-sized company in the United States.

H3<sub>0</sub>: A statistically significant difference does not exist in grit level between age (18–25, 26–35, 36–49, or 50+) for timeshare sales representatives for a medium-sized company in the United States.

H3: A statistically significant difference does exist in grit level between age (18–25, 26–35, 36–49, or 50+) for timeshare sales representatives for a medium-sized company in the United States.

H4<sub>0</sub>: An interaction effect of performance level (high, middle, or low), gender (male or female), and age (18–25, 26–35, 36–49, or 50+) does not exist for grit level for timeshare sales representatives for a medium-sized company in the United States.

H4: An interaction effect of performance level (high, middle, or low), gender (male or female), and age (18–25, 26–35, 36–49, or 50+) does exist for grit level for timeshare sales representatives for a medium-sized company in the United States.

# **Main Effect Between Variables**

Research Question 1 asked: Does a statistically significant difference exist in grit level between performance levels (high, middle, or low) for timeshare sales representatives for a medium-sized timeshare company in the United States? The statistical significance of the main effect was p = .576 (see Table 5). The p value is greater than .05 (i.e., it does not satisfy p < .05), which means a statistically significant main effect does not exist. Data shows there was no statistically significant main effect between performance level and grit level (see Table 5). There was no statistically significant main effect between grit level and performance level, F(1, 40) = .772, p = .576. The null hypothesis failed to be rejected which stated a statistically significant difference does not exist in grit level between performance level (high, middle, or low) for timeshare sales representatives for a medium-sized company in the United States.

Table 5

ANOVA for Main Effect Between Grit Level and Performance Level

Independent variable	Type II SS	df	MS	F	Sig.
Performance level	.529	5	.106	.772	.576

*Note.* Dependent variable: grit level.

Research Question 2 asks: Does a statistically significant difference exist in grit level between gender (male or female) for timeshare sales representatives for a medium-sized timeshare company in the United States? The statistical significance of the main effect was p = .370 (see Table 6). A p value which is greater than .05 shows there was no statistically significant main effect between gender and grit level. There was no statistically significant main effect between grit level and gender, F(1, 40) = .821, p = .370. The null hypothesis failed to be rejected which stated a statistically significant difference does not exist in grit level between gender (male or female) for timeshare sales representatives for a medium-sized company in the United States.

 Table 6

 ANOVA for Main Effect Between Grit Level and Gender

Independent variable	Type II SS	df	MS	F	Sig.
Gender	.113	1	.113	.821	.370

*Note.* Dependent variable: grit level.

Research Question 3 asks: Does a statistically significant difference exist in grit level between ages (18–25, 26–35, 36–49, and 50+) for timeshare sales representatives for a medium-

sized timeshare company in the United States? The statistical significance of the main effect term was p = .799 (see Table 7). A p value greater than .05 signifies there is not a statistically significant main effect. There was no statistically significant main effect between grit level and age, F(1, 40) = .336, p = .799. The null hypothesis failed to be rejected which stated a statistically significant difference does not exist in grit level between age (18–25, 26–35, 36–49, or 50+) for timeshare sales representatives for a medium-sized company in the United States.

 Table 7

 ANOVA for Main Effect Between Grit Level and Age

Independent variable	Type II SS	df	MS	F	Sig.
Age	.138	3	.046	.336	.799

Note. Dependent variable: grit level.

Research Question 4 asks: Does an interaction effect of performance level (high, middle, or low), gender (male or female), and age (18–25, 26–35, 36–49, or 50+) of grit level for timeshare sales representatives for a medium-sized company in the United States? Determining whether a three-way interaction exists between the three independent variables is the main goal of executing a three-way ANOVA (Laerd Statistics, 2017). The statistical significance of the three-way interaction term was p = .565 (see Table 8). A p value greater than .05 signifies there is not a statistically significant interaction effect. There was no statistically significant three-way interaction between performance level, gender, and age, F(1, 40) = .337, p = .565. The null hypothesis failed to be rejected which stated no interaction effect of performance level (high, middle, or low), gender (male or female), and age (18–25, 26–35, 36–49, or 50+) does not exist for grit level for timeshare sales representatives for a medium-sized company in the United

States.

**Table 8**Three-Way Interaction Between Variables: Performance Level, Age, and Gender

Variable	Type III SS	df	MS	F	Sig.
Performance Level*Age*Gender	.046	1	.046	.337	.565
Error	5.48	40	.137		

Note. Dependent variable: grit level.

Since there was no significant three-way interaction, the next step was to determine if any significant two-way interactions exist. A three-way ANOVA contains three 2-way interactions (Laerd Statistics, 2017). The two-way interactions are displayed in Table 9 and show no significant two-way interactions. Each of the p values (.576, .445, and .957) did not satisfy p < .05 and suggests there are no significant two-way interactions.

**Table 9**Two-Way Interactions Between Variables

Variable	Type III SS	df	MS	F	Sig.
Performance Level*Age	.529	5	.106	.772	.576
Performance Level*Gender	.226	2	.113	.826	.445
Age*Gender	.012	2	.006	.044	.957

*Note.* Dependent variable: grit level.

No statistically significant differences were found in the analysis. Estimated power was determined using G\*Power 3.1 with an alpha of .05, an effect size of .5, eight degrees of

freedom, nine groups, and a sample size of 57. The estimated power of the ANOVA was 0.694 which may be considered a weak test possible due to the small sample size.

# Reliability and Validity

Instrumentation decay can occur if the implementation of the instrument changes over time (Baldwin, 2018). Variables for the study were controlled by creating uniformity in how they were collected. Participants received the survey in the same way (online) with an average completion time of just under 2 minutes. Although participants were located at three different properties varying in size, all participants were hired and trained for employment by the same group based on the same standards. Participant selection was based only on having worked for a minimum of six months as a sales representative to prevent selection bias.

External validity explains how the findings of a study can be generalized beyond the sample examined (Baldwin, 2018). A possible threat to the external validity of the study was the availability of sales representatives. A change in workforce composition due to Covid-19 reduced the available number of participants who met the 6-month criteria and were willing to participate to 62 sales representatives. Sixty-two participants were sufficient and distributing to another sales department was not necessary.

Nonprobability sampling was used to determine the participants in the study. The sample of a study may be chosen rather than randomly selected to represent the population being studied using nonprobability sampling (Etikan, Musa, et al., 2016). Sixty-two participants were selected based on convenience sampling to guarantee an appropriate representation of the population. Previous research conducted on grit level used a quasi-experimental research design through quantitative methods with inferential statistics (Bedford, 2017). A quasi-experimental design was deemed to be an appropriate model for the study as previous use in researching grit levels.

# **Chapter Summary**

Data obtained for the quantitative quasi-experimental study provided the information required to answer the research questions and hypotheses. After analyzing the data, the answer to each of the research questions found a statistically significant difference did not exist in grit level between the independent variables (performance level, gender, and age) for timeshare sales representatives for a medium-sized timeshare company in the United States. The results also showed an interaction effect of performance level, gender, and age of grit level for timeshare sales representatives for a medium-sized company in the United States does not exist. The findings, interpretations, conclusions, limitations, recommendations, and implications for leadership will be presented in Chapter 5.

# **Chapter 5: Discussion and Conclusion**

The purpose of the quantitative quasi-experimental nonequivalent group study was to test for statistical differences in grit level between performance level, gender, and age for timeshare sales representatives for a medium-sized timeshare company in the United States. The problem is the lack of knowledge of a difference in grit for performance level, gender, and age of timeshare sales representatives for medium-sized companies in the Unites States. Independent variables of the study, performance level, gender, and age, were collected for each of the participants along with the dependent variable, grit level. Data were collected from timeshare sales representatives for one resort at three different sites using SurveyMonkey. Grit level was determined by using Duckworth's Grit-S which was an eight-question Likert scale (see Appendix E).

The reasoning for the study was to find if a statistical significance exists in grit level between performance level, gender, and age. The amount of turnover in the timeshare industry has led to increased recruiting and training costs. As discussed in Chapter 2, research for grit has focused on academic settings. Findings helped bridge the gap in the literature for research focused on grit in sales in the workforce.

A quantitative method was utilized to assess statistical differences in grit level between performance level, gender, and age for timeshare representatives. An established survey was used to collect the dependent variable, grit level with demographic questions on the independent variables added to the data collected in the online survey. A quasi-experimental nonequivalent group design was the designated research design with a three-way ANOVA as the statistic test.

The first three research questions and their corresponding hypotheses focused on determining if a statistical difference exists in grit level between performance levels, gender, and age for timeshare sales representatives. Null hypotheses for each of the first three research

questions failed to be rejected and determined there was no statistically significant difference in grit level between performance level gender and age. Research question number four and its hypotheses focused on determining if an interaction effect of performance level, gender, and age of grit level exists. A statistically significant three-way interaction was not found, and the null hypothesis was rejected. With no significant three-way interaction found, the three two-way interactions were tested for statistical significance. Results showed no significant two-way interactions between the independent variables. No statistically significant differences were found in any of the analyses.

The findings, interpretations, and conclusions are discussed in the following sections.

Limitations to internal and external validity are addressed along with references to the sample and control of variables. Recommendations for future research and implications for leadership are included.

### Findings, Interpretations, Conclusions

Analysis of the data collected contributed to answering each of the research questions and determining which hypotheses would be rejected. Analysis of comparison was done on the mean grit levels for each of the independent variables during the interpretation of the results in Chapter 4. A three-way ANOVA was used to determine a main effect for grit level for performance level, gender, and age, as well as an interaction effect between variables. The findings, interpretations, and conclusions are discussed in the following sections. Each research question is discussed individually for further insight.

#### **Performance Level and Grit Level**

Research Question 1 and the corresponding hypotheses focused on determining whether a statistically significant difference existed in grit level between the three performance levels (low,

medium, and high). Data showed there was no significant difference between low, medium, or high-performance levels. No evidence was provided to reject the null hypothesis and the null hypothesis was accepted.

The results were surprising when compared to literature which stated the capability to be more successful has been associated with persons who have a high level of grit because of motivation levels and the ability to cope well with setbacks (Danner et al., 2019). Studies conducted with medical students found a statistically significant difference between grit levels and student performance levels (Miller-Matero et al., 2018). Data analysis did not find any significant changes in grit level for the performance levels for timeshare sales representatives.

The means scores for performance levels were compared to determine if any of the performance levels showed higher levels of grit. Sales representatives with medium performance levels had higher grit levels (4.09) than those with low (3.92) and high (3.94) performance levels. Perhaps the higher grit scores could be contributed to the fact the individuals found the sales levels harder to achieve. More perseverance and determination may be required to reach and maintain sales performance for medium-performing individuals. Sales representatives with higher performance levels may hold a natural talent for sales and do not need as much motivation to succeed. The lower performance levels could be attributed to the lack of skills to acquire higher levels of performance.

#### **Gender and Grit Level**

Research Question 2 and the corresponding hypotheses focused on determining whether a statistically significant difference existed in grit level for gender (male or female). Data showed there was no significant difference between males and females. No evidence was provided to reject the null hypothesis, so the null hypothesis was accepted.

The results of the study fell in line with the mixed results found in the literature for studies on grit and gender. Grit is a personality trait which can be explained with concepts of perseverance and resilience (Akbag & Ümmet, 2017). Research from the study tested for statistical differences in grit level for gender and found none.

Studies have demonstrated a higher chance of achieving a high grit score for females than for males (Kannangara et al., 2018). The means scores for gender were compared to determine if either of the genders showed higher levels of grit. Of the 57 participants, 34 were male and 23 were female. Females had a higher mean grit level score (4.09) than males (3.93) based on the sample of timeshare sales representatives.

### **Age and Grit Level**

Research Question 3 and the corresponding hypotheses focused on determining whether a statistically significant difference existed in grit level for age (18–25, 26–35, 36–49, and 50+). Data showed there was no significant difference between the four age groups. No evidence was provided to reject the null hypothesis, so the null hypothesis was accepted.

Research from the study tested for statistical differences in grit level for age and found none. A comparison of the mean grit scores for age was completed to determine if any of the age groups showed higher levels of grit. The rationale was to see if any trends appeared in the comparisons. Participants in the 26–35 groups achieved the highest average grit levels (4.06). Comparable results were found in studies where students over the age of 31 achieved higher grit scores than their counterparts between the ages of 18 and 21 (Kannangara et al., 2018).

The results of the comparison also showed participants over the age of 50 had a slight increase in grit levels (3.99) than those in the 36–49 group. Grit may increase with age (Teimouri et al., 2020). Groups of adults over the age of 55 were surveyed in a study using Grit-S and

showed that grit is consistent throughout older adulthood (Rhodes & Giovannetti, 2021).

Maintaining consistent levels of grit can contribute to successful aging.

### **Interaction Effects Between Variables**

Research Question 4 and the corresponding hypotheses focused on determining whether an interaction effect exists between performance level, gender, and age for grit level. Data showed there was no significant three-way interaction. The null hypothesis failed to be rejected. Since there were no statistically significant three-way interactions, the two-way interactions needed to be considered. Analysis was completed and found there were no significant two-way interactions.

#### **Conclusions from Variable Results**

The main theoretical framework that guided the study was grit theory (Duckworth et al., /2007). Grit theory is the skill of maintaining consistent top-level goals for long durations (Duckworth, 2016). The theoretical framework addressed the research questions that determined whether a statistically significant difference existed in grit level between performance levels, gender, and age for timeshare sales representatives. Results of the study showed no statistically significant differences were found in the analysis, including any interactions effects between the variables.

Considering the positive influences grit has been shown to contribute to an organization, the results have shown performance levels, gender, and age cannot be used to determine grit levels within a sales force. Should a statistical significance had been found, management could have used the information to formulate a strategy to increase grit among the sales representatives and potentially increase overall performance levels.

The second theory in the theoretical framework was servant leadership (Greenleaf, 1977).

Servant leadership encourages managers to inspire employees with organizational assets to improve performance (Eva et al., 2019). Although a statistically significant difference was not found in grit level for sales performance, servant leadership can still be used to develop levels of energy to persist in their efforts to succeed which will assist in overcoming sales challenges.

Success defines servant leadership by the well-being and development of organizational members (Chan & So, 2017).

A comparison of the mean grit scores for performance level, gender, and age revealed a few trends. Sales representatives with medium performance levels had the highest average grit levels. Females achieved higher average grit levels than males. The age group of 26–35 had the highest average grit levels than the other three groups.

#### Limitations

Limitations to external validity included the availability of sales representatives. The convenience sample was originally anticipated to include a minimum of 69 participants. A change in the composition of the workforce related to Covid-19 reduced the sample size to 62 participants. After removing outliers and an extreme point, the final number of participants was again reduced to 57. The estimated power of the ANOVA was determined to be 0.694 because of the reduced number of participants which may be considered a weak test. A larger sample size may have resulted in a stronger test. Future attempts to duplicate the research when the workforce has returned to previous numbers would be better suited to achieve a higher estimate of power for analysis.

Internal validity was threatened due to the use of natural groups. The extent to which assumptions can be made about the population based on the procedures in a study is internal validity (Creswell, 2014). To prevent selection bias, participant selection was based only on

having worked for over 6 months as a sales representative at the resort. Internal validity was boosted by using the strict inclusion criteria.

Control of the variables was maintained by creating uniformity in how the data were collected but the environment varied slightly. Data were collected from three different resorts.

The setting for each was unique. The collection of data from all participants in one location may have been beneficial in creating complete uniformity.

The second demographic question in the survey was about gender and asked the participant to choose between male and female. Genderism is the idea that only two genders exist and forces all individuals into two dichotomous gender groups (Kean, 2020). Gender was restricted to binary options and may be considered biased language. An alternative would have been to include more options such as cisgender male, cisgender female, transgender, and nonbinary.

Another limitation of the study is the Grit-S survey. Grit scales are considered self-report measures and have certain limitations (Teimouri et al., 2020). Under normal circumstances, there would have been more time to explain the survey but with social distancing restrictions, time was limited. Participants were provided a link to SurveyMonkey to fill out the survey. Additional time to present the survey instructions to participants on paper may have helped increase consistency in answers.

#### Recommendations

Results, interpretations, and conclusions from the study have added to the knowledge of grit and sales but the information should not be limited to just that arena. Advantages of high grit levels can be applied to many different areas that extend past sales. In general, grit is defined as the perseverance and passion an individual holds to achieve long-term goals (Duckworth et al.,

2007; Reysen et al., 2019). Grit training may be used for other departments within an organization to help employees develop and achieve long-term goals. The fierce efforts to achieve desired goals when faced with adversity are related to perseverance (Surahman & Iswinarti, 2021) and can be applied to all facets of life globally.

Future research should be conducted on grit and sales performance at the management level to see if the same independent variables show any statistically significant differences. Possible changes in the results would be interesting and beneficial to organizations in maintaining employees in management positions. The promotion to management is timeshare sales increases demand and stress on the individual. Facing bigger pressures with increased stress for students and professionals has been found to reduce resilience and well-being (Whitfield et al., 2021). Conducting the same research in another organization should be done to determine if the same results will occur. The research should be duplicated using the same research methodology.

A larger sample size should be used for future studies. Decreases in frequency were created on research not related to Covid-19 in addition to business productivity (Omary et al., 2020). Due to a change in the workforce composition during the collection of data, the initial sample size for the target population was significantly reduced from 69 to 57. The resulting estimated power of the ANOVA used was 0.694 which can be considered a weak test. Increasing the sample size may help increase the power of the study and achieve results that vary from the initial study.

Grit can be developed over time (Duckworth, 2016; Jordan, et al., 2019). The results have shown participants over the age of 50 had an increased level of grit. Increased levels may be due to still being in the workforce. Efforts should be made to work on grit development for aging

adults (55+) because higher grit levels can contribute to promoting adaptation to the developmental roadblocks of the aging population (Rhodes & Giovannetti, 2021).

Grit training should be included in sales training to develop levels of perseverance and passion. Education that is specific to the needs of an organization is considered training (Barnes, 2021). Training is a form of education within the organization and can be used to increase well-being. Regardless of the lack of statistical significance of grit level for performance level, gender, and age, grit has been shown to predict positive well-being in studies using regression analysis (Moen & Olsen, 2020). Increasing the well-being of employees can lead to a series of positive impacts in an organization.

## **Implications for Leadership**

The theory of servant leadership was the leadership theory that guided the theoretical framework of the study. A few of the characteristics of servant leaders are foresight, stewardship, and commitment to growth (Mareus et al., 2019). Taking into consideration the results and conclusions on grit and its implications for employee well-being is what a servant leader would do. Thinking ahead, implementing policy to improve employee welfare, and committing to enhancing an organization's future performance all fall under the umbrella of servant leadership.

Leadership should consider the conclusions and decide how they can be utilized at organizational levels to improve performance. Although no statistically significant differences were found, the methodology can be used to conduct studies within their organizations. Findings have shown a culture of organizational grit may exist and further research is reasonable (Luning et al., 2021). Leaders may find the results in the unique cultures of organizations may vary and significance may exist within their environments. With no statistical differences found, it confirms leadership should not be biased in the recruitment of sales representatives based on

gender or age. The additional insight that grit can be developed creates an equal opportunity for all.

#### Conclusion

Results from the study revealed trends in grit levels for performance levels, gender, and age in timeshare sales representatives. The information may be utilized in analyzing how grit levels can be improved within an organization based on specific variables. The purpose of the quantitative study was to test for statistically significant differences in grit level between performance level, gender, and age for timeshare sales representatives to possibly increase sales performance. An increase in sales performance would then contribute to the reduction of turnover rates and the associated costs. No statistically significant differences were found in grit levels for performance levels, gender, and age.

The limitations of the study included a small sample size due to the availability of sales representatives, environment variations during data collection, possible biased language caused by restricting gender to binary options, and utilization of a self-reporting instrument.

Recommendations for future research included duplication of the study at the management level because of an increase in demand and stress levels. Increased knowledge on grit levels and the advantages they provide can and should be applied in sales and all organizations.

Implications for leadership involve planning ahead, taking into consideration employee welfare and devoting time to improving organizational performance through servant leadership. Grit is a forecaster for personal well-being (Akbag & Ümmet, 2017). The differences between performance levels, gender, and age for grit level in timeshare sales were not found to be statistically significant in this study but further research should be conducted.

### References

- Abd Halim, M., Foozy, C. F. M., Rahmi, I., & Mustapha, A. (2018). A review of live survey application: SurveyMonkey and SurveyGizmo. *JOIV: International Journal on Informatics Visualization*, 2(4–2), 309–312. http://dx.doi.org/10.30630/joiv.2.4-2.170
- Aditomo, A. (2015). Students' response to academic setback: "Growth Mindset" as a buffer against demotivation. *International Journal of Educational Psychology*, 4(2), 198–222. <a href="http://dx.doi.org/10.17583/ijep.2015.1482">http://dx.doi.org/10.17583/ijep.2015.1482</a>
- Akbag, M., & Ümmet, D. (2017). Predictive role of grit and basic psychological needs satisfaction on subjective well-being for young adults. *Online Submission*, 8(26), 127–135. https://www.iiste.org/Journals/index.php/JEP
- Allen, G. P., Moore, W. M., Moser, L. R., Neill, K. K., Sambamoorthi, U., & Bell, H. S. (2016).

  The role of servant leadership and transformational leadership in academic pharmacy.

  American Journal of Pharmaceutical Education, 80(7).

  https://doi.org/10.5688/ajpe807113
- Allen, M. (2017). *The sage encyclopedia of communication research methods* (Vols. 1–4). SAGE Publications, Inc. <a href="https://doi.org/10.4135/9781483381411">https://doi.org/10.4135/9781483381411</a>
- Alvesson, M., & Sandberg, J. (2011). Generating research questions through problematization.

  \*Academy of Management Review, 36(2), 247–271. <a href="https://doi.org/10.5465/amr.2009.0188">https://doi.org/10.5465/amr.2009.0188</a>
- American College of Education. (2018, August 24). Institutional Review Board (IRB) handbook. <a href="https://catalog.ace.edu/index.php?catoid=11">https://catalog.ace.edu/index.php?catoid=11</a>
- American Resort Development Association. (2020). We're the face of vacation ownership.

  <a href="https://www.arda-roc.org/sites/default/files/2020-11/ARDA-ARDAROC-Timeshare-Industry-2020.pdf">https://www.arda-roc.org/sites/default/files/2020-11/ARDA-ARDAROC-Timeshare-Industry-2020.pdf</a>

- Anderson, C., Turner, A. C., Heath, R. D., & Payne, C. M. (2016). On the meaning of grit... and hope... and fate control... and alienation... and locus of control... and... self-efficacy... and... effort optimism... and.... *The Urban Review*, 48(2), 198–219. https://doi.org/10.1007/s11256-016-0351-3
- Aronson, J., Fried, C. B., & Good, C. (2002). Reducing the effects of stereotype threat on African American college students by shaping theories of intelligence. *Journal of Experimental Social Psychology*, 38(2), 113–125. <a href="https://doi.org/10.1006/jesp.2001.1491">https://doi.org/10.1006/jesp.2001.1491</a>
- Aslam, M. (2020). On detecting outliers in complex data using Dixon's test under neutrosophic statistics. *Journal of King Saud University–Science*, 32(3), 2005–2008. https://doi.org/10.1016/j.jksus.2020.02.003
- Bakar, R. M., Jufri, M., & Tadjuddin, F. (2020, October). Customer service orientation, emotional labor strategy, and emotional exhaustion. In *3rd International Conference on Education, Science, and Technology (ICEST 2019)* (pp. 83–87). Atlantis Press. https://dx.doi.org/10.2991/assehr.k.201027.018
- Baldwin, L. (2018). Internal and external validity and threats to validity. In *Research Concepts* for the *Practitioner of Educational Leadership* (pp. 31–36). Brill Sense.
- Barnes, C. (2021, May 12). *Education and training what's the difference?* eLearning Industry. https://elearningindustry.com/education-and-training-what-is-the-difference
- Barnes, C. M., Dang, C. T., Leavitt, K., Guarana, C. L., & Uhlmann, E. L. (2018). Archival data in micro-organizational research: A toolkit for moving to a broader set of topics. *Journal of Management*, 44(4), 1453–1478. https://doi.org/10.1177%2F0149206315604188
- Bartz, D. E. (2018). Components for talent development of staff members. *International Journal of Organizational Theory and Development*, 6(1), 1–10. <a href="https://ijol.cikd.ca/">https://ijol.cikd.ca/</a>

- Bazelais, P., Lemay, D. J., Doleck, T., Hu, X. S., Vu, A., & Yao, J. (2018). Grit, mindset, and academic performance: A study of pre-university science students. *EURASIA Journal of Mathematics, Science and Technology Education*, *14*(12), em1615.

  <a href="https://doi.org/10.29333/ejmste/94570">https://doi.org/10.29333/ejmste/94570</a>
- Bedford, S. (2017). Growth mindset and motivation: A study into secondary school science learning. *Research papers in education*, *32*(4), 424–443. https://doi.org/10.1080/02671522.2017.1318809
- Bisel, R. S., & Adame, E. A. (2017). Post-positivist/functionalist approaches. *The International Encyclopedia of Organizational Communication*, 1–22. https://doi.org/10.1002/9781118955567.wbieoc168
- Boichuk, J. P., Bolander, W., Hall, Z. R., Ahearne, M., Zahn, W. J., & Nieves, M. (2014).

  Learned helplessness among newly hired salespeople and the influence of leadership. *Journal of Marketing*, 78(1), 95–111. https://doi.org/10.1509/jm.12.0468
- Bowman, N. A., Miller, A., Woosley, S., Maxwell, N. P., & Kolze, M. J. (2019). Understanding the link between noncognitive attributes and college retention. *Research in Higher Education*, 60(2), 135–152. <a href="https://doi.org/10.1007/s11162-018-9508-0">https://doi.org/10.1007/s11162-018-9508-0</a>
- Broda, M., Yun, J., Schneider, B., Yeager, D. S., Walton, G. M., & Diemer, M. (2018). Reducing inequality in academic success for incoming college students: A randomized trial of growth mindset and belonging interventions. *Journal of Research on Educational Effectiveness*, 11(3), 317–338. <a href="https://doi.org/10.1080/19345747.2018.1429037">https://doi.org/10.1080/19345747.2018.1429037</a>
- Brougham, L., & Kashubeck-West, S. (2017). Impact of a growth mindset intervention on academic performance of students at two urban high schools. *Professional School Counseling*, 21(1), 2156759X18764934. https://doi.org/10.1177/2156759X18764934

- Burgoyne, A. P., Hambrick, D. Z., Moser, J. S., & Burt, S. A. (2018). Analysis of a mindset intervention. *Journal of Research in Personality*, 77, 21–30. https://doi.org/10.1016/j.jrp.2018.09.004
- Burnette, J. L., Pollack, J. M., Forsyth, R. B., Hoyt, C. L., Babij, A. D., Thomas, F. N., & Coy, A. E. (2020). A growth mindset intervention: Enhancing students' entrepreneurial self-efficacy and career development. *Entrepreneurship Theory and Practice*, 44(5), 878–908. https://doi.org/10.1177%2F1042258719864293
- Buzzetto-Hollywood, N., Mitchell, B. C., & Hill, A. J. (2019). Introducing a mindset intervention to improve student success. *Interdisciplinary Journal of E-Learning & Learning Objects*, 15. https://doi.org/10.28945/4465
- Caniëls, M. C., Semeijn, J. H., & Renders, I. H. (2018). Mind the mindset! The interaction of proactive personality, transformational leadership and growth mindset for engagement at work. *Career Development International*, 23(1), 48–66. <a href="https://doi.org/10.1108/CDI-11-2016-0194">https://doi.org/10.1108/CDI-11-2016-0194</a>
- Cesaret, B., Dawande, M., & Rajapakshe, T. (2019). On member-driven, efficient, and fair timeshare exchanges. *Production & Operations Management*, 28(1), 189–205. https://doi.org/10.1111/poms.12905
- Chan, K. W. C. (2016). Servant leadership cultivates grit and growth mindset in learners. *Servant Leadership: Theory & Practice*, *3*(2), 2.

  <a href="https://csuepress.columbusstate.edu/sltp/vol3/iss2/2">https://csuepress.columbusstate.edu/sltp/vol3/iss2/2</a>
- Chan, K. W. C., & So, G. (2017). Cultivating servant leaders in secondary schooling. *Servant Leadership: Theory & Practice*, *4*(1), 2.

  https://csuepress.columbusstate.edu/sltp/vol4/iss1/2

- Christopoulou, M., Lakioti, A., Pezirkianidis, C., Karakasidou, E., & Stalikas, A. (2018). The role of grit in education: A systematic review. *Psychology*, *9*(15), 2951–2971. https://www.scirp.org/journal/paperinformation.aspx?paperid=89388
- Chu, X., Ilyas, I. F., Krishnan, S., & Wang, J. (2016, June). Data cleaning: Overview and emerging challenges. In *Proceedings of the 2016 International Conference on Management of Data* (pp. 2201–2206). http://dx.doi.org/10.1145/2882903.2912574
- Cloutier, O., Felusiak, L., Hill, C., & Pemberton-Jones, E. J. (2015). The importance of developing strategies for employee retention. *Journal of Leadership, Accountability & Ethics*, 12(2). <a href="http://www.m.www.na-businesspress.com/JLAE/Pemberton-JonesEJ\_Web12\_2.pdf">http://www.m.www.na-businesspress.com/JLAE/Pemberton-JonesEJ\_Web12\_2.pdf</a>
- Connelly, L. M. (2020). Inclusion and exclusion criteria. *MEDSURG Nursing*, 29(2), 125–116.

  <a href="http://www.medsurgnursing.net/cgi-bin/WebObjects/MSNJournal.woa/wa/viewSection?s\_id=1073744496">http://www.medsurgnursing.net/cgi-bin/WebObjects/MSNJournal.woa/wa/viewSection?s\_id=1073744496</a>
- Cooper, C., Booth, A., Varley-Campbell, J., Britten, N., & Garside, R. (2018). Defining the process to literature searching in systematic reviews: a literature review of guidance and supporting studies. *BMC Medical Research Methodology*, *18*(1). <a href="https://doi.org/10.1186/s12874-018-0545-3">https://doi.org/10.1186/s12874-018-0545-3</a>
- Cramer, A. O., van Ravenzwaaij, D., Matzke, D., Steingroever, H., Wetzels, R., Grasman, R. P., & Wagenmakers, E. J. (2016). Hidden multiplicity in exploratory multiway ANOVA:

  Prevalence and remedies. *Psychonomic bulletin & review*, 23(2), 640–647.

  https://doi.org/10.1080/02671522.2017.1318809
- Credé, M., Tynan, M. C., & Harms, P. D. (2017). Much ado about grit: a meta-analytic synthesis of the grit literature. *Journal of Personality and Social Psychology*, 113(3), 492.

- https://doi.org/10.1037/pspp0000102
- Creswell, J. W. (2003). Research design: Qualitative, quantitative, and mixed methods Approaches (2nd Ed.). SAGE.
- Creswell, J. W. (2014). Research design: Qualitative, quantitative, and mixed methods approaches (4th ed.). SAGE Publications.
- Cupitt, C., & Golshan, N. (2015). Participation in higher education online: Demographics, motivators, and grit. In *STARS Conference* (pp. 1–4).

  <a href="https://www.unistars.org/papers/STARS2015/09C.pdf">https://www.unistars.org/papers/STARS2015/09C.pdf</a>
- Danner, D., Lechner, C. M., & Rammstedt, B. (2019). A cross-national perspective on the associations of grit with career success. *Compare: A Journal of Comparative and International Education*. https://doi.org/10.1080/03057925.2019.1617110
- Datu, J. A. D., Valdez, J. P. M., & King, R. B. (2016). Perseverance counts but consistency does not! Validating the short grit scale in a collectivist setting. *Current Psychology*, *35*(1), 121–130. https://doi.org/10.1007/s12144-015-9374-2
- Deeter-Schmelz, D. R. (2021). Managing the latest generations of sales representatives: what millennials and generation z want. In *A Research Agenda for Sales*. Edward Elgar Publishing.
- Deller, C. (2019). Reflections on Obtaining Archival Data from the Field. *Journal of Financial Reporting*, 4(1), 25–36. https://doi.org/10.2308/jfir-52336
- De Winter, J., & Dodou, D. (2012). Five-point Likert items: *T*-test versus Mann-Whitney-Wilcoxon. *Practical Assessment and Research Evaluation*, *15*(11), 1–16. https://doi.org/10.7275/bj1p-ts64
- Direito, I., Chance, S., & Malik, M. (2019). The study of grit in engineering education research:

- a systematic literature review. *European Journal of Engineering Education*, 1–25. https://doi.org/10.1080/03043797.2019.1688256
- Duckworth, A. (2016). *Grit: The power of passion and perseverance* (Vol. 234). New York, NY: Scribner.
- Duckworth, A., & Gross, J. J. (2014). Self-control and grit: Related but separable determinants of success. *Current directions in psychological science*, 23(5), 319–325. https://doi.org/10.1177%2F0963721414541462
- Duckworth, A. L., Peterson, C., Matthews, M. D., & Kelly, D. R. (2007). Grit: Perseverance and passion for long-term goals. *Journal of Personality and Social Psychology*, *9*, 1087–1101. http://www.sas.upenn.edu/~duckwort/Grit%20JPSP.pdf
- Duckworth, A. L., & Quinn, P. D. (2009). Development and validation of the short grit scale (GRIT–S). *Journal of Personality Assessment*, 91(2), 166–174. https://doi.org/10.1080/00223890802634290
- Dugan, R., Hochstein, B., Rouziou, M., & Britton, B. (2018). Gritting their teeth to close the sale: the positive effect of salesperson grit on job satisfaction and performance. *Journal of Personal Selling & Sales Management*, 39(1), 81–101.

  https://doi.org/10.1080/08853134.2018.1489726
- Dweck, C. S. (2006). Mindset: The new psychology of success. Random House.
- Dweck, C. S. (2016). What having a "growth mindset" actually means. *Harvard Business Review*, 13, 213–226. <a href="https://hbr.org/2016/01/what-having-a-growth-mindset-actually-means">https://hbr.org/2016/01/what-having-a-growth-mindset-actually-means</a>
- Dweck, C. S., & Leggett, E. L. (1988). A social–cognitive approach to motivation and personality. *Psychological Review*, 95(2), 256. <a href="https://doi.org/10.1037/0033-">https://doi.org/10.1037/0033-</a>

# 295X.95.2.256

- Dweck, C. S., Walton, G. M., & Cohen, G. L. (2014). Academic tenacity: Mindsets and skills that promote long-term learning. *Bill & Melinda Gates Foundation*.
- Eskreis-Winkler, L., Duckworth, A. L., Shulman, E. P., & Beal, S. (2014). The grit effect:

  Predicting retention in the military, the workplace, school, and marriage. *Frontiers in Psychology*, 5, 36. <a href="https://doi.org/10.3389/fpsyg.2014.00036">https://doi.org/10.3389/fpsyg.2014.00036</a>
- Etikan, I., Alkassim, R., & Abubakar, S. (2016). Comparison of snowball sampling and sequential sampling technique. *Biometrics and Biostatistics International Journal*, *3*(1), 55. https://doi.org/10.15406/bbij.2015.03.00055
- Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American journal of theoretical and applied statistics*, *5*(1), 1–4. https://doi.org/10.11648/j.ajtas.20160501.11
- Eva, N., Robin, M., Sendjaya, S., van Dierendonck, D., & Liden, R. C. (2019). Servant leadership: A systematic review and call for future research. *The Leadership Quarterly*, 30(1), 111–132. https://doi.org/10.1016/j.leaqua.2018.07.004
- Fisher, M., & Fethney, J. (2016). Sampling data in quantitative research. *Nursing and Midwifery*Research. Methods and appraisal of evidence-based practice. New South Wales,

  Australia: Elsevier Australia, 165–79.
- Fitzgerald, C. (2016). Helping students enhance their grit and growth mindsets. *Educația Plus*, 14(3), 52–67. <a href="https://www.ceeol.com/search/article-detail?id=617240">https://www.ceeol.com/search/article-detail?id=617240</a>
- Flaming, N., & Granato, I. R. (2017). Personality and gender: Grit differences in undergraduates.

  In Southwestern Psychological Association conference. Oklahoma: Oklahoma City

  University.

- Grant, H., Slaughter, M., & Dexter, A. (2018). 5 mistakes companies make about growth mindset. *Harvard Business Review Digital Articles*, 2. <a href="https://hbr.org/2018/07/5-mistakes-companies-make-about-growth-mindsets">https://hbr.org/2018/07/5-mistakes-companies-make-about-growth-mindsets</a>
- Greenleaf, R. K. (1977). Servant leadership: A journey into the nature of legitimate power and greatness. Paulist Press.
- Griffin, M. L., McDermott, K. A., McHugh, R. K., Fitzmaurice, G. M., & Weiss, R. D. (2016).

  Grit in patients with substance use disorders. *The American Journal on Addictions*, 25(8), 652–658. <a href="https://doi.org/10.1111/ajad.12460">https://doi.org/10.1111/ajad.12460</a>
- Grove, S. K. (2019). Clarifying quantitative research designs. *Understanding Nursing Research:*First South Asia Edition, E-Book: Building an Evidence-Based Practice, 191.
- Hadi, A. S., & Imon, A. H. M. (2018). Identification of multiple outliers in spatial data. *International Journal of Statistical Sciences*, 16, 87–96. <a href="http://www.ru.ac.bd/stat/wp-content/uploads/sites/25/2019/01/07\_Ali-S-Hadi.pdf">http://www.ru.ac.bd/stat/wp-content/uploads/sites/25/2019/01/07\_Ali-S-Hadi.pdf</a>
- Hicks, G. J., & Walker, M. D. (2006). Training in the timeshare industry. *Tourism and Hospitality Research*, 6(4), 296–300. https://doi.org/10.1057/palgrave.thr.6050020
- Hochanadel, A., & Finamore, D. (2015). Fixed and growth mindset in education and how grit helps students persist in the face of adversity. *Journal of International Education*\*Research (JIER), 11(1), 47–50. <a href="http://www.cluteinstitute-onlinejournals.com/">http://www.cluteinstitute-onlinejournals.com/</a>
- Holdan, G., Lias, A. R., Locke, J. R., Elfen, H. H., & Buzzelli, A. A. (2018). Success without grit: an exploratory study of individuals with low grit scores and high academic performance. *International Journal of Current Research*, 10(9), 73520–73252. <a href="https://doi.org/10.24941/ijcr.32187.09.2018">https://doi.org/10.24941/ijcr.32187.09.2018</a>
- Hosken, D. J., Buss, D. L., & Hodgson, D. J. (2018). Beware the f test (or, how to compare

- variances). *Animal Behaviour*, *136*, 119–126. https://doi.org/10.1016/j.anbehav.2017.12.014
- Ienca, M., & Vayena, E. (2020). On the responsible use of digital data to tackle the COVID-19 pandemic. *Nature Medicine*, 26(4), 463–464. www.nature.com/naturemedicine
- Ion, A., Mindu, A., & Gorbănescu, A. (2017). Grit in the workplace: Hype or ripe? *Personality and Individual Differences*, 111, 163–168. http://dx.doi.org/10.1016/j.paid.2017.02.012
- Jager, J., Putnick, D. L., & Bornstein, M. H. (2017). More than just convenient: The scientific merits of homogeneous convenience samples. *Monographs of the Society for Research in Child Development*, 82(2), 13–30. <a href="https://doi.org/10.1111/mono.12296">https://doi.org/10.1111/mono.12296</a>
- Jones, C. (2010). Archival data: Advantages and disadvantages for research in psychology. *Social and Personality Psychology Compass*, 8, 11, 1008–1017. https://doi.org/10.1111/j.1751-9004.2010.00317.x
- Jordan, S. L., Ferris, G. R., Hochwarter, W. A., & Wright, T. A. (2019). Toward a work motivation conceptualization of grit in organizations. *Group & Organization Management*, 44(2), 320–360. https://doi.org/10.1177%2F1059601119834093
- Kadam, R. A. (2017). Informed consent process: A step further towards making it meaningful!

  \*Perspectives in Clinical Research, 8(3), 107.

  https://dx.doi.org/10.4103%2Fpicr.PICR\_147\_16
- Kannangara, C. S. (2015). From languishing dyslexia to thriving dyslexia: Developing a new conceptual approach to working with people with dyslexia. Front. *Psychol.* 6:1976. https://doi.org/10.3389/fpsyg.2015.01976
- Kannangara, C. S., Allen, R. E., Waugh, G., Nahar, N., Khan, S. Z. N., Rogerson, S., & Carson, J. (2018). All that glitters is not grit: Three studies of grit in university students. *Frontiers*

- in Psychology, 9, 1539. https://doi.org/10.3389/fpsyg.2018.01539
- Kean, E. (2020). Advancing a critical trans framework for education. *Curriculum Inquiry*, 1–26. https://doi.org/10.1080/03626784.2020.1819147
- Keating, L. A., & Heslin, P. A. (2015). The potential role of mindsets in unleashing employee engagement. *Human Resource Management Review*, 25(4), 329–341. https://doi.org/10.1016/j.hrmr.2015.01.008
- Kiger, L. L. (2017). Growth mindset in the classroom. *Empowering Research for Educators*, I(1), 4. <a href="https://openprairie.sdstate.edu/ere/vol1/iss1/4">https://openprairie.sdstate.edu/ere/vol1/iss1/4</a>
- Kim, Y., & Steiner, P. (2016). Quasi-experimental designs for causal inference. *Educational Psychologist*, *51*(3–4), 395–405. <a href="https://doi.org/10.1080/00461520.2016.1207177">https://doi.org/10.1080/00461520.2016.1207177</a>
- Kumar, R. (2019). Introduction to Statistical Tool: SPSS. *Hands-on Training on "Statistical Tools and Database Management in Agriculture*," 15.
- Laerd Statistics. (2017). *Three-way ANOVA using SPSS Statistics. Statistical tutorials and software guides.* https://statistics.laerd.com/
- Lasky, J. (2020). Timeshare. Salem Press Encyclopedia.
- Lechner, C. M., Danner, D., & Rammstedt, B. (2019). Grit (effortful persistence) can be measured with a short scale, shows little variation across socio-demographic subgroups, and is associated with career success and career engagement. *PLOS One*, *14*(11), e0224814. https://doi.org/10.1371/journal.pone.0224814
- Lindhult, E. (2019). Scientific excellence in participatory and action research: Part II. Rethinking objectivity and reliability. *Technology Innovation Management Review*, 9(5), 22–33. https://timreview.ca/
- Lo, P., Allard, B., Wang, N., & Chiu, D. K. (2018). Servant leadership theory in practice: North

- America's leading public libraries. *Journal of Librarianship and Information Science*, 52(1), 249–270. https://hdl.handle.net/10539/30324
- Lobe, B., Morgan, D., & Hoffman, K. A. (2020). Qualitative data collection in an era of social distancing. *International Journal of Qualitative Methods*, *19*, 1609406920937875. https://doi.org/10.1177%2F1609406920937875
- Locke, E. A., & Latham, G. P. (1990). Work motivation and satisfaction: Light at the end of the tunnel. *Psychological Science*, *1*(4), 240–246. <a href="https://doi.org/10.1111%2Fj.1467-9280.1990.tb00207.x">https://doi.org/10.1111%2Fj.1467-9280.1990.tb00207.x</a>
- Locke, E. A., & Latham, G. P. (2002). Building a practically useful theory of goal setting and task motivation: A 35-year odyssey. *American Psychologist*, *57*(9), 705. https://psycnet.apa.org/doi/10.1037/0003-066X.57.9.705
- Locke, E. A., & Latham, G. P. (2006). New directions in goal-setting theory. *Current Directions in Psychological Science*, 15(5), 265–268. <a href="https://doi.org/10.1111/j.1467-8721.2006.00449.x">https://doi.org/10.1111/j.1467-8721.2006.00449.x</a>
- Lopez, J. D., & Horn, J. M. (2020). Grit and retention among first year Hispanic college students at a Hispanic serving institution. *Hispanic Journal of Behavioral Sciences*, 42(2), 264–270. https://doi.org/10.1177/0739986320910153
- Luning, C. R., Attoh, P. A., Gong, T., & Fox, J. T. (2021). A Culture of organizational grit from the perspective of US military officers: A qualitative inquiry. *Armed Forces & Society*, 0095327X20985197. https://doi.org/10.1177%2F0095327X20985197
- Ma, Y., Ma, C., & Lan, X. (2020). Uncovering the moderating role of grit and gender in the association between teacher autonomy support and social competence among Chinese undergraduate students. *International Journal of Environmental Research and Public*

- Health, 17(17), 6398. https://doi.org/10.3390/ijerph17176398
- Maddi, S. R., Matthews, M. D., Kelly, D. R., Villarreal, B., & White, M. (2012). The role of hardiness and grit in predicting performance and retention of USMA cadets. *Military Psychology (Taylor & Francis Ltd)*, 24(1), 19–28.
  <a href="https://doi.org/10.1080/08995605.2012.639672">https://doi.org/10.1080/08995605.2012.639672</a>
- Madhani, P. M. (2017). A salesperson's future value and training needs: A model-driven approach. *World at Work Journal*, 26(1), 38–48. <a href="https://worldatwork.org/">https://worldatwork.org/</a>
- Malone, H. E., Nicholl, H., & Coyne, I. (2016). Fundamentals of estimating sample size. *Nurse Researcher*, 23(5). https://doi.org/10.7748/nr.23.5.21.s5
- Marentes-Castillo, M., Zamarripa, J., & Castillo, I. (2019). Validation of the grit scale and the treatment self-regulation questionnaire (TSRQ) in the Mexican context. *Revista Latinoamericana de Psicología*, 51(1), 9–18.

  <a href="http://dx.doi.org/10.14349/rlp.2019.v51.n1.2">http://dx.doi.org/10.14349/rlp.2019.v51.n1.2</a>
- Mareus, R., Patterson, K., Firestone, S., & Winston, B. E. (2019). Exploring servant leadership in a top-down environment. *Servant Leadership: Theory & Practice*, 6(1), 4. <a href="https://csuepress.columbusstate.edu/sltp/vol6/iss1/4">https://csuepress.columbusstate.edu/sltp/vol6/iss1/4</a>
- Matthews, L. M., & Edmondson, D. R. (2020). Overcoming emotional exhaustion in a sales setting. *Journal of Global Scholars of Marketing Science*, *30*(3), 229–239. https://doi.org/10.1080/21639159.2020.1766989
- McClendon, C., Neugebauer, R. M., & King, A. (2017). Grit, growth mindset, and deliberate practice in online learning. *Journal of Instructional Research*, 8, 8–17. http://www.instructionalresearch.com
- Merriam-Webster. (n.d.). Age. In Merriam-Webster.com dictionary. https://www.merriam-

- webster.com/dictionary/age
- Miller, K. (2020, October 12). 5+ ways to develop a growth mindset using grit and resilience.

  <a href="https://positivepsychology.com/5-ways-develop-grit-resilience/">https://positivepsychology.com/5-ways-develop-grit-resilience/</a>
- Miller-Matero, L. R., Martinez, S., MacLean, L., Yaremchuk, K., & Ko, A. B. (2018). Grit: A predictor of medical student performance. *Education for Health*, *31*(2), 109. https://www.educationforhealth.net/text.asp?2018/31/2/109/246747
- Mishra, P., Pandey, C. M., Singh, U., Gupta, A., Sahu, C., & Keshri, A. (2019). Descriptive statistics and normality tests for statistical data. *Annals of Cardiac Anaesthesia*, 22(1), 67. <a href="https://www.annals.in/text.asp?2019/22/1/67/250184">https://www.annals.in/text.asp?2019/22/1/67/250184</a>
- Moen, F., & Olsen, M. (2020). Grit: A unique protective factor of coaches well-being and burnout? *New Ideas in Psychology*, *59*, 100794.

  <a href="http://dx.doi.org/10.1016/j.newideapsych.2020.100794">http://dx.doi.org/10.1016/j.newideapsych.2020.100794</a>
- Mohapatra, M., Gupta, A., & Lamba, N. (2017). Attrition analysis in a leading sales organisation in India. *Amity Journal of Training and Development*, 2(1), 19–25. <a href="https://amity.edu/UserFiles/admaa/89dcaPaper 2.pdf">https://amity.edu/UserFiles/admaa/89dcaPaper 2.pdf</a>
- Molenberghs, G., & Verbeke, G. (2013). Missing data. In Scott, M. A., Simonoff, J. S., & Marx, B. D. *The SAGE handbook of multilevel modeling* (pp. 403–424). SAGE Publications Ltd. https://doi.org/10.4135/9781446247600
- Morell, M., Yang, J. S., Gladstone, J. R., Turci Faust, L., Ponnock, A. R., Lim, H. J., & Wigfield, A. (2021). Grit: The long and short of it. *Journal of Educational Psychology*, 113(5), 1038. https://doi.org/10.1037/edu0000594
- Newman, T. (2018, February 7). Sex and gender: Meanings, definition, identity, and expression.

  Medical News Today. <a href="https://www.medicalnewstoday.com/articles/232363#gender-">https://www.medicalnewstoday.com/articles/232363#gender-</a>

#### differences

- Nkwake, A. M. (2013). Why are assumptions important? In: Working with assumptions in international development program evaluation. Springer. <a href="https://doi.org/10.1007/978-1-4614-4797-9">https://doi.org/10.1007/978-1-4614-4797-9</a> 7
- Norman, G. (2010). Likert scales, levels of measurement and the "laws" of statistics. *Advances* in Health Sciences Education, 15(5), 625–632. <a href="https://doi.org/10.1007/s10459-010-9222-y">https://doi.org/10.1007/s10459-010-9222-y</a>
- Nuzzo, R. L. (2016). The box plots alternative for visualizing quantitative data. *PM&R*, 8(3), 268–272. http://dx.doi.org/10.1016/j.pmrj.2016.02.001
- Office for Human Research Protections. (2018, January 15). The Belmont Report.

  <a href="https://www.hhs.gov/regulations-and-policy/belmont-report/read-the-belmont-report/index.html">https://www.hhs.gov/regulations-and-policy/belmont-report/read-the-belmont-report/index.html</a>
- Okwuraiwe, F. E., Ezenwaka, C., Mojekeh, M. O., & Chiyem, O. (2018). Sales force turnover and corporate image of selected marketing organizations in Anambra State. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 8(3), 163–177. http://dx.doi.org/10.6007/IJARAFMS/v8-i3/4758
- Omary, M. B., Eswaraka, J., Kimball, S. D., Moghe, P. V., Panettieri, R. A., & Scotto, K. W. (2020). The COVID-19 pandemic and research shutdown: Staying safe and productive. *The Journal of clinical investigation*, *130*(6), 2745–2748.

  <a href="https://doi.org/10.1172/JCI138646">https://doi.org/10.1172/JCI138646</a>
- Orosz, G., Péter-Szarka, S., Bőthe, B., Tóth-Király, I., & Berger, R. (2017). How not to do a mindset intervention: Learning from a mindset intervention among students with good grades. *Frontiers in Psychology*, 8, 311. https://doi.org/10.3389/fpsyg.2017.00311

- O'Rourke, E., Haimovitz, K., Ballweber, C., Dweck, C., & Popović, Z. (2014, April). Brain points: A growth mindset incentive structure boosts persistence in an educational game. In *Proceedings of the SIGCHI conference on human factors in computing systems* (pp. 3339–3348). ACM. <a href="https://doi.org/10.1145/2556288.2557157">https://doi.org/10.1145/2556288.2557157</a>
- Paquette, L., Ocumpaugh, J., Li, Z., Andres, A., & Baker, R. (2020). Who's Learning? Using Demographics in EDM Research. *Journal of Educational Data Mining*, 12(3), 1–30. <a href="https://jedm.educationaldatamining.org/index.php/JEDM">https://jedm.educationaldatamining.org/index.php/JEDM</a>
- Patel, M. X., Doku, V., & Tennakoon, L. (2003). Challenges in recruitment of research participants. *Advances in Psychiatric Treatment*, *9*(3), 229–238. https://doi.org/10.1192/apt.9.3.229
- Patino, C. M., & Ferreira, J. C. (2018). Inclusion and exclusion criteria in research studies: definitions and why they matter. *Jornal Brasileiro de Pneumologia*, 44(2), 84. https://doi.org/10.1590/s1806-37562018000000088
- Pauluzzo, R. (2020). Applying yin yang wisdom in western organizational settings: Using interviews, documents, and field observations for cross-cultural research. *SAGE Research Methods Cases*. <a href="https://doi.org/10.4135/9781529704136">https://doi.org/10.4135/9781529704136</a>
- Paunesku, D., Walton, G. M., Romero, C., Smith, E. N., Yeager, D. S., & Dweck, C. S. (2015).

  Mind-set interventions are a scalable treatment for academic underachievement.

  Psychological science, 26(6), 784–793. https://doi.org/10.1177/0956797615571017
- Pedersen, A. B., Mikkelsen, E. M., Cronin-Fenton, D., Kristensen, N. R., Pham, T. M., Pedersen,
  L., & Petersen, I. (2017). Missing data and multiple imputations in clinical
  epidemiological research. *Clinical Epidemiology*, *9*, 157.
  https://doi.org/10.2147/CLEP.S129785

- Queirós, A., Faria, D., & Almeida, F. (2017). Strengths and limitations of qualitative and quantitative research methods. *European Journal of Education Studies*.

  <a href="https://doi.org/10.5281/zenodo.887089">https://doi.org/10.5281/zenodo.887089</a>
- Reed, L., & Jeremiah, J. (2017). Student grit as an important ingredient for academic and personal success. In *Developments in Business Simulation and Experiential Learning:*Proceedings of the Annual ABSEL conference (Vol. 44, No. 1). <a href="https://absel-ojs-ttu.tdl.org/absel/index.php/absel/article/view/3099">https://absel-ojs-ttu.tdl.org/absel/index.php/absel/article/view/3099</a>
- Reysen, R., Perry, P., Reysen, M., & Knight, R. D. (2019). Not so soft skills: The importance of grit to college student success. *Journal of College Orientation, Transition, and Retention*, 26(2). https://doi.org/10.24926/jcotr.v26i2.2397
- Rhodes, E., & Giovannetti, T. (2021). Grit and successful aging in older adults. *Aging & Mental Health*, 1–8. https://doi.org/10.1080/13607863.2021.1919990
- Roddewig, R. J., & Brigden, C. T. (2019). Timeshares, market value, and the real estate appraisal process. *Appraisal Journal*, 87(2), 95–114. www.appraisalinstitute.org
- Rodriguez, M., Boyer, S., Fleming, D., & Cohen, S. (2019). Managing the next generation of sales, gen Z/millennial cusp: An exploration of grit, entrepreneurship, and loyalty.

  \*\*Journal of Business-to-Business Marketing\*, 26(1), 43–55.\*

  https://doi.org/10.1080/1051712X.2019.1565136
- Ross, P. T., & Zaidi, N. L. B. (2019). Limited by our limitations. *Perspectives on Medical Education*, 8(4), 261–264. <a href="https://doi.org/10.1007/s40037-019-00530-x">https://doi.org/10.1007/s40037-019-00530-x</a>
- Saleh, A., & Bista, K. (2017). Examining factors impacting online survey response rates in educational research: Perceptions of graduate students. *Online Submission*, *13*(2), 63–74. <a href="http://www.jmde.com">http://www.jmde.com</a>

- Scheel, A. M., Tiokhin, L., Isager, P. M., & Lakens, D. (2021). Why hypothesis testers should spend less time testing hypotheses. *Perspectives on Psychological Science*, *16*(4), 744-755. <a href="https://doi.org/10.1177/1745691620966795">https://doi.org/10.1177/1745691620966795</a>
- Schippers, M. C., Morisano, D., Locke, E. A., Scheepers, A. W., Latham, G. P., & de Jong, E. M. (2020). Writing about personal goals and plans regardless of goal type boosts academic performance. *Contemporary Educational Psychology*, 60, 101823. https://doi.org/10.1016/j.cedpsych.2019.101823
- Sheldon, K. M., Jose, P. E., Kashdan, T. B., & Jarden, A. (2015). Personality, effective goal-striving, and enhanced well-being: Comparing 10 candidate personality strengths.

  \*Personality and Social Psychology Bulletin, 41(4), 575–585.

  https://doi.org/10.1177%2F0146167215573211
- Singh, V. L., Manrai, A. K., & Manrai, L. A. (2015). Sales training: A state of the art and contemporary review. *Journal of Economics, Finance and Administrative Science*, 20(38), 54–71. <a href="https://doi.org/10.1016/j.jefas.2015.01.001">https://doi.org/10.1016/j.jefas.2015.01.001</a>
- Sparks, B., Butcher, K., & Pan, G. (2007). Understanding customer-derived value in the timeshare industry. *Cornell Hotel and Restaurant Administration Quarterly*, 48(1), 28–45. <a href="https://doi.org/10.1177/0010880406294473">https://doi.org/10.1177/0010880406294473</a>
- Spears, L. C. (2010). Character and servant leadership: Ten characteristics of effective, caring leaders. *The Journal of Virtues & Leadership*, *1*(1), 25–30. https://www.regent.edu/acad/global/publications/jvl/home.htm
- Stollberger, J., Las Heras, M., Rofcanin, Y., & Bosch, M. J. (2019). Serving followers and family? A trickle-down model of how servant leadership shapes employee work performance. *Journal of Vocational Behavior*, 112, 158–171.

# https://doi.org/10.1016/j.jvb.2019.02.003

- Sunder, S., Kumar, V., Goreczny, A., & Maurer, T. (2017). Why do salespeople quit? An empirical examination of own and peer effects on salesperson turnover behavior. *Journal of Marketing Research*, *54*(3), 381–397. <a href="https://doi.org/10.1509/jmr.15.0485">https://doi.org/10.1509/jmr.15.0485</a>
- Surahman, S., & Iswinarti, I. (2021). How to cultivate perseverance and passion for long-term goals? Review of grit predictors. *American Research Journal of Humanities Social Science (ARJHSS)*, 4(1). <a href="http://www.arjhss.com/">http://www.arjhss.com/</a>
- Tang, X., Upadyaya, K., & Salmela-Aro, K. (2021). School burnout and psychosocial problems among adolescents: grit as a resilience factor. *Journal of Adolescence*, 86, 77–89. <a href="https://doi.org/10.1016/j.adolescence.2020.12.002">https://doi.org/10.1016/j.adolescence.2020.12.002</a>
- Tang, X., Wang, M. T., Guo, J., & Salmela-Aro, K. (2019). Building grit: The longitudinal pathways between mindset, commitment, grit, and academic outcomes. *Journal of Youth and Adolescence*, 48(5), 850–863. https://doi.org/10.1007/s10964-019-00998-0
- Teimouri, Y., Plonsky, L., & Tabandeh, F. (2020). L2 grit: Passion and perseverance for second-language learning. *Language Teaching Research*, 1362168820921895.

  <a href="https://doi.org/10.1177%2F1362168820921895">https://doi.org/10.1177%2F1362168820921895</a>
- Theofanidis, D., & Fountouki, A. (2018). Limitations and delimitations in the research process.

  \*Perioperative Nursing, 7(3), 155–163. <a href="https://hdl.handle.net/http//:www.spnj.gr">https://hdl.handle.net/http//:www.spnj.gr</a>
- Thuan, N. H., Drechsler, A., & Antunes, P. (2019). Construction of design science research questions. *Communications of the Association for Information Systems*, 44(1), 332–363. https://doi.org/10.17705/1CAIS.04420
- Timeshare Definitions and Terms. (n.d.). <a href="http://www.myresortnetwork.com/timeshare-glossary.asp#V">http://www.myresortnetwork.com/timeshare-glossary.asp#V</a>

- Tucker-Drob, E. M., Briley, D. A., Engelhardt, L. E., Mann, F. D., & Harden, K. P. (2016).

  Genetically-mediated associations between measures of childhood character and academic achievement. *Journal of Personality and Social Psychology*, 111(5), 790.

  https://doi.org/10.1037/pspp0000098
- Vazsonyi, A. T., Ksinan, A. J., Jiskrova, G. K., Mikuška, J., Javakhishvili, M., & Cui, G. (2019).

  To grit or not to grit, that is the question!. *Journal of Research in Personality*, 78, 215–226. https://doi.org/10.1016/j.jrp.2018.12.006
- Wallace, M., Bowman, D., Hamilton-Gibbs, H., & Siersema, P. D. (2020). Ethics in publication part 3: Conflicts of interest. *Endoscopy*, 52(02), 94–95. <a href="https://doi.org/10.1055/a-1044-2118">https://doi.org/10.1055/a-1044-2118</a>
- West, M. R., Kraft, M. A., Finn, A. S., Martin, R. E., Duckworth, A. L., Gabrieli, C. F., & Gabrieli, J. D. (2016). Promise and paradox: Measuring students' non-cognitive skills and the impact of schooling. *Educational Evaluation and Policy Analysis*, *38*(1), 148–170. https://doi.org/10.3102%2F0162373715597298
- Whitfield, K., Arya, V., Austin, Z., Bajis, D., Bradley, C., Clark, B., Exintaris, B., Galbraith, K.,
  Saffouh El Hajj, M., Hall, K., Hughes, L., Kirsa, S., Langran, C., Mantzourani, E., Wilby,
  K. J., & Willis, S. (2021). Developing a global community of practice for pharmacy
  workforce resilience—Meet grit. *Pharmacy*, 9(2), 110.
  https://doi.org/10.3390/pharmacy9020110
- Wis, R. M. (2002). The conductor as servant-leader. *Music Educators Journal*, 89(2), 17–23. https://doi.org/10.2307%2F3399837
- Xiao, Y., & Watson, M. (2019). Guidance on conducting a systematic literature review. *Journal of Planning Education and Research*, 39(1), 93–112.

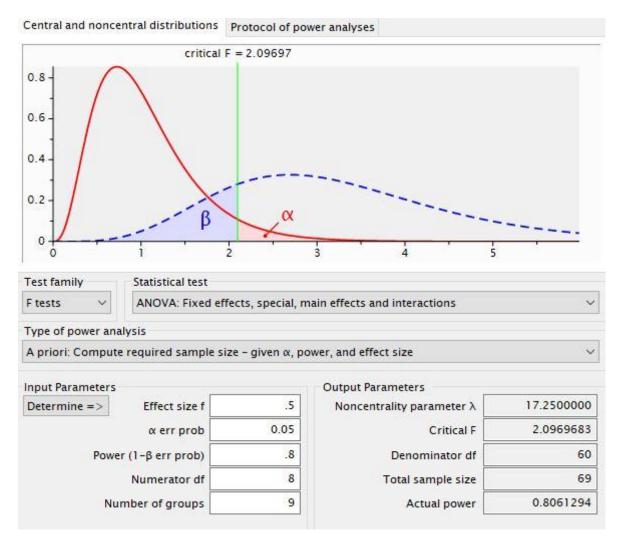
#### https://doi.org/10.1177%2F0739456X17723971

- Yeager, D. S., Romero, C., Paunesku, D., Hulleman, C. S., Schneider, B., Hinojosa, C., Lee, H.
  L., O'Brien, J., Flint, K., Roberts, A., Trott, J., Green, D., Walton, G. M., & Dweck, C. S.
  (2016). Using design thinking to improve psychological interventions: The case of the growth mindset during the transition to high school. *Journal of Educational Psychology*, 108(3), 374–391. https://doi.org/10.1037/edu00000098
- Zeng, G., Hou, H., & Peng, K. (2016). Effect of growth mindset on school engagement and psychological well-being of Chinese primary and middle school students: The mediating role of resilience. *Frontiers in Psychology*, 7, 1873.

  https://doi.org/10.3389/fpsyg.2016.01873
- Zhang, L., & Liu, Z. (2018, March). Ethical issues in research processes: Informed consent, the role of the researcher, access to research sites and research subjects. In 2nd International Conference on Culture, Education and Economic Development of Modern Society (ICCESE 2018). Atlantis Press. http://creativecommons.org/licenses/by-nc/4.0/
- Zutlevics, T. L. (2016). Could providing financial incentives to research participants be ultimately self-defeating? *Research Ethics*, *12*(3), 137–148. https://doi.org/10.1177%2F1747016115626756
- Zyphur, M. J., & Pierides, D. C. (2017). Is quantitative research ethical? Tools for ethically practicing, evaluating, and using quantitative research. *Journal of Business Ethics*, 143(1), 1–16. https://doi.org/10.1007/s10551-017-3549-8

Appendix A

# Sample Size Determination Using G\*Power 3.1



# Appendix B

# **Permission Letter**

	I, grant permission to Diane Diaz, a doctoral candidate at American College of Education, to use a Grit survey with sales representatives at and use the information for her dissertation related to Grit and Timeshare Sales Performance: A Quantitative Quasi-Experimental Study. I understand the purpose of the quantitative quasi-experimental study will be to test for statistical differences in grit levels between performance
	level, gender, and age for timeshare sales representatives for a medium-sized timeshare company in the United States.
	The study will include approximately 69 participants who will receive informed consent letters of their involvement. They will voluntarily take a questionnaire either on paper or online and the results will determine their grit levels. The results will then be compared to their performance level, gender and age.
	Important Contacts for this study include:
	Principal Investigator: Diane Diaz E-mail: Phone:
	Dissertation Chair: Dr. Jamie Ball E-mail: Phone:
	Regards, 3/5/2021
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#### Appendix C

#### **Recruitment Letter**

January 1, 2021

Jane Doe

I am writing to let you know about an opportunity to participate in a dissertation research study about grot and timeshare sales performance. I am a doctoral student at the American College of Education.

The purpose of the research study is to examine performance level, gender, and age in timeshare sales impact grit levels for timeshare sales representatives. Through the investigation of grit levels and whether there is a statistically significant between performance level, age, and gender within timeshare sales may provide support to the timeshare industry in developing performance levels. As I have mentioned, you have been identified as a possible participant for this study. Agreement to be contacted for more information does not obligate you to participate in this study. Your participation in the study is voluntary. If you do not wish to participate, you may withdraw at any time.

I may publish the results of this study; however, I will not use your name or share any information you provided. Your information will remain confidential. If you would like additional information about the study, please call

Thank you again for considering this dissertation research opportunity.

### Appendix D

#### **Informed Consent**

**Prospective Research Participant:** Read this consent form carefully and ask as many questions as you like before you decide whether you want to participate in this research study. You are free to ask questions at any time before, during, or after your participation in this research.

#### **Project Information**

<b>Project Title:</b>	Grit and Timeshare Sales Performance: A Quantitative Quasi-Experimental
	Study

**Researcher:** Diane Diaz

Organization: American College of Education

Email: Telephone:

**Researcher's Faculty Member:** Dr. Jamie Ball

**Organization and Position:** American College of Education

Email:

#### Introduction

I am Diane Diaz, and I am a doctoral candidate student at the American College of Education. I am doing research under the guidance and supervision of my Chair, Dr. Jamie Ball. I will give you some information about the project and invite you to be part of this research. Before you decide, you can talk to anyone you feel comfortable with about the research. This consent form may contain words you do not understand. Please ask me to stop as we go through the information, and I will explain. If you have questions later, you can ask them then.

#### **Purpose of the Research**

You are being asked to participate in a research study which will assist with understanding the differences in grit level between performance level, gender, and age for medium-sized companies in the United States. This quantitative study will examine performance level, gender, and age in timeshare sales impact grit levels for timeshare sales representatives.

Through the investigation of grit levels and whether there is a statistically significant between performance level, age, and gender within timeshare sales may provide support to the timeshare industry in developing performance levels.

#### **Research Design and Procedures**

The study will use a quantitative methodology and a quasi-experimental research design. Online surveys will be disseminated to specific participants within the resort's sales line. The study will comprise of 69 participants, randomly selected, who will participate in the grit study. The study will involve taking an online survey to be conducted at the site most convenient for participants. Participants will be selected to take the survey specific to the study on grit.

# **Participant selection**

You are being invited to take part in this research because of your experience as a timeshare sales representative you can contribute much to the study as you meet the criteria for the sample population. Participant selection criteria: sales representative with a minimum of six months of sales experience.

#### **Voluntary Participation**

Your participation in this research is entirely voluntary. It is your choice whether to participate. If you choose not to participate, there will be no punitive repercussions and you do not have to participate. If you select to participate in this study, you may change your mind later and stop participating even if you agreed earlier.

#### **Procedures**

We are inviting you to participate in this research study. If you agree, you will be asked to take an online survey. The type of questions asked will range from a demographical perspective to direct inquiries about the topic of grit.

#### Duration

The survey portion of the research study will require approximately 5 minutes to complete. If you are selected to participate in the grit study, the time expected will be a maximum of 5 minutes. If you are chosen to be a participant, the time allotted for the survey will be 5 minutes at a location and time convenient for the participant.

#### Risks

The researcher will ask you to share personal and confidential information, and you may feel uncomfortable talking about some of the topics. You do not have to answer any question or take part in the discussion if you don't wish to do so. You do not have to give any reason for not responding to any question.

#### **Benefits**

While there will be no direct financial benefit to you, your participation is likely to help us find out more about grit and if there is a statistically significant difference exists in grit level between sales performance, age, and gender. The potential benefits of this study will aid the timeshare industry in developing training tools to increase performance levels.

#### Reimbursement

As a result of your participation in this research study, you will not receive reimbursement.

# Confidentiality

I will not share information about you or anything you say to anyone outside of the researcher. During the defense of the doctoral dissertation, data collected will be presented to the dissertation committee. The data collected will be kept in a locked file cabinet or encrypted computer file. Any information about you will be coded and will not have a direct correlation, which directly identifies you as the participant. Only I will know what your number is, and I will secure your information.

#### **Sharing the Results**

At the end of the research study, the results will be available for each participant. It is anticipated to publish the results so other interested people may learn from the research.

#### **Right to Refuse or Withdraw**

Participation is voluntary. At any time, you wish to end your participation in the research study, you may do so without repercussions.

#### **Questions About the Study**

If you have any questions, you can ask them now or later. If you wish to ask questions later, you may contact Diane Diaz. This research plan has been reviewed and approved by the Institutional Review Board of the American College of Education. This is a committee whose role is to make sure research participants are protected from harm. If you wish to ask questions

of this group, email

### **Certificate of Consent**

I have read the information about this study, or it has been read to me. I acknowledge why I have been asked to be a participant in the research study. I have been provided the opportunity to ask questions about the study, and any questions have been answered to my satisfaction. I certify I am at least 18 years of age. I consent voluntarily to be a participant in this study.

Print or Type Name of Participant:
Signature of Participant:
Date:
I confirm that the participant was given an opportunity to ask questions about the study,
and all the questions asked by the participant have been answered to the best of my ability. I
confirm that the individual has not been coerced into giving consent, and the consent has been
given freely and voluntarily. A copy of this Consent Form has been provided to the participant.
Print or type name of lead researcher: Diane Diaz

I have accurately read or witnessed the accurate reading of the assent form to the

Signature of lead researcher:

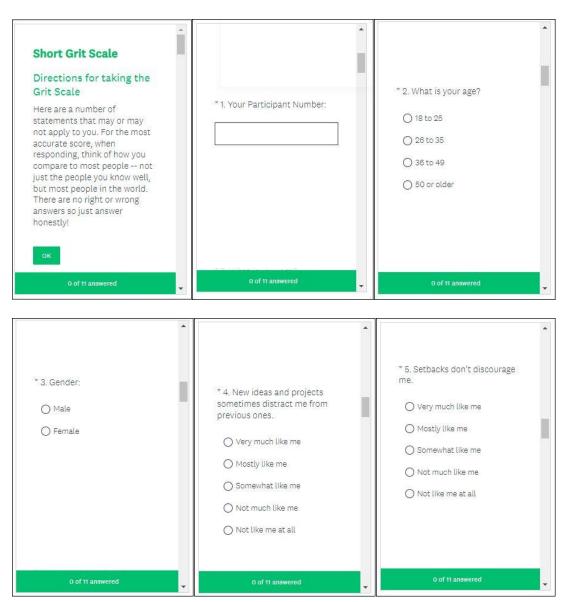
potential participant, and the individual has had the opportunity to ask questions. I confirm the individual has freely given assent.

Print or type name of lead researcher: Diane Diaz	
Signature of lead researcher:	
Date:	
Signature of faculty member:	
Date:	

PLEASE KEEP THIS INFORMED CONSENT FORM FOR YOUR RECORDS.

# Appendix E

# **Short Grit Scale (Grit-S)**



* 6. I have been obsessed with a certain idea or project for a short time but later lost interest.  O Very much like me  O Mostly like me  Somewhat like me  Not much like me	* 7. I am a hard worker.  Very much like me  Mostly like me  Somewhat like me  Not much like me  Not like me at all	* 8. I often set a goal but later choose to pursue a different one.  Overy much like me  Mostly like me  Somewhat like me  Not much like me
0 of 11 answered	0 of 11 answered	0 of 11 answered
* 9. I have difficulty maintaining my focus on projects that take more than a few months to complete.  O Very much like me O Mostly like me O Somewhat like me Not much like me Not like me at all	* 10. I finish whatever I begin.  Overy much like me  Mostly like me  Somewhat like me  Not much like me  Not like me at all	* 11. I am diligent.  O Very much like me  Mostly like me  Somewhat like me  Not much like me  Not like me at all
0 of 11 answered	0 of 11 answered	0 of 11 answered



# Appendix F

#### **Permission to Use Instrument**

### Angela Duckworth

THE BOOK GRIT SCALE RESEARCH ABOUT CHARACTER LAB

#### Research

My research focuses on two traits that predict achievement: grit and self-control. Grit is the tendency to sustain interest in and effort toward very long-term goals (Duckworth et al., 2007). Self-control is the voluntary regulation of impulses in the presence of momentarily gratifying temptations (Duckworth & Seligman, 2005; Duckworth & Steinberg, 2015). On average, individuals who are gritty are more self-controlled, but the correlation between these two traits is not perfect: Some individuals are paragons of grit but not self-control, and some exceptionally well-regulated individuals are not especially gritty (Duckworth & Gross, 2014).

#### Measures

Researchers and educators are welcome to use the scales I have developed for non-commercial purposes.

On a cautionary note, these scales were originally designed to assess individual differences rather than subtle within-individual changes in behavior over time. Thus, it's uncertain whether they are valid indicators of pre- to post-change as a consequence of interventions. I also discourage the use of these scales in high-stakes settings where faking is a concern (e.g., admissions or hiring decisions). Please see the article Measurement Matters for more information.

These scales are copyrighted. They cannot be published or used for commercial purposes or wide public distribution. Therefore, journalists and book authors should not reproduce these scales nor any part of them.

From http://angeladuckworth.com/research/

Appendix G

Data Collected From Study

	Performance Level	Age	Gender	Grit Level
	(low, medium, or high)	(18-25, 26- 35, 36-49, or 50+)	(male or female)	(1-5)
1	Medium	50+	Male	3.38
2	High	36-49	Male	3.88
3	Medium	36-49	Male	3.50
4	High	36-49	Female	3.63
5	High	26-35	Female	3.25
6	High	36-49	Male	4.00
7	Medium	18-25	Male	4.25
8	High	18-25	Male	3.88
9	High	18-25	Male	4.63
10	High	18-25	Male	4.00
11	Medium	26-35	Male	4.00
12	High	18-25	Male	3.88
13	High	18-25	Male	3.50
14	High	26-35	Male	4.13
15	Low	26-35	Male	3.75
16	Medium	26-35	Male	4.50
17	Medium	36-49	Female	2.75
18	High	50+	Female	4.25
20	Medium	36-49	Male	4.75
21	Medium	50+	Female	4.13
22	Low	36-49	Female	4.25
23	High	36-49	Male	4.38

24	High	26-35	Male	2.75
25	Low	50+	Male	2.63
26	Medium	36-49	Male	3.63
27	Medium	50+	Male	4.13
28	High	26-35	Male	3.63
29	High	36-49	Female	3.88
30	Medium	36-49	Female	4.00
31	Low	36-49	Male	3.75
32	Low	36-49	Female	4.13
33	High	36-49	Female	4.38
34	High	36-49	Male	3.63
35	Medium	36-49	Female	4.38
36	High	26-35	Male	4.38
37	High	26-35	Female	3.75
38	High	36-49	Female	4.00
39	Medium	36-49	Male	4.50
40	High	50+	Female	3.50
41	High	50+	Male	4.00
42	High	50+	Male	4.13
43	Low	36-49	Female	4.25
44	High	26-35	Female	4.13
45	Medium	50+	Female	4.63
46	High	50+	Male	4.00
47	Medium	50+	Female	4.25
48	Low	50+	Male	4.50
49	High	26+35	Male	4.13
50	Medium	50+	Male	4.25
51	Low	36-49	Female	4.13
52	Medium	36-49	Male	3.75
53	Medium	50+	Female	3.88
54	Medium	36-49	Male	3.50

55	Medium	26-35	Male	4.25	
56	Medium	36-49	Female	4.13	
57	Medium	36-49	Male	4.38	
58	High	36-49	Male	2.75	
59	High	36-49	Female	4.38	
61	Medium	50+	Female	3.50	
63	High	36-49	Male	4.00	
64	Medium	50+	Female	4.75	
65	High	36-49	Female	3.88	