

AN ANALYSIS OF ROLE-PLAY GAMING HABITS  
IN REGARD TO ESCAPISM AND  
NEED FOR COGNITION

by

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A Thesis  
presented in partial fulfillment  
of the requirements for the degree of  
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## ABSTRACT

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Escapism research historically focused on the relationship between specific activities encouraging escape from negative experiences, and personality constructs related to escape frequency. The purpose of the current study was to examine the relationship between escapism behaviors and personality constructs in a Role Play Game (RPG) specific context. Data was gathered from 64 undergraduate students at the University of Central Missouri. Based on responses to a forced-choice questionnaire regarding RPG playing, participants were placed into either a gamer or nongamer group, and completed a self-report questionnaire packet. Analysis showed that responses from gamers were comparable to responses from nongamers on all measures, indicating that the two groups did not differ on the specific factors examined. Further investigation is suggested to better understand the nature of RPG gaming and the desire to escape reality. It is also suggested that need for cognition be examined in tandem with other forms of escape behavior.

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## CHAPTER 1 NATURE AND SCOPE OF THE STUDY

### *Rationale*

Escapism has historically been defined as an individual's need to leave reality again and again, due to unsatisfying circumstances (Henning & Vorderer, 2001). The history of escapism research follows a set pattern: a new activity is identified as being a route for mental escape used by a large segment of the population, researched heavily, and then set aside as the activity is superseded by a newly popular activity. For example, Groid (1970) depicted sexual "swinging" (e.g. the act of engaging in sexual activities with multiple partners) as a method of escaping from relationship related stressors such as jealousy. Sexual swinging research was superseded by extensive research in alcohol and drug use which empirically established drugs and alcohol as modes of escapism from environmental and intrapsychic stressors (Sadava, Thistle, & Forsyth, 1978). Similarly, gambling gained popularity in escapism research and established compulsive gambling as a form of socially driven escapism (Reid, Li, Lopez, Collard, Parhami, Karmi, & Fong, 2010). Gambling became a more accessible form of escape with the introduction of new technology, such as slot machines and computer gambling sites.

More technology oriented forms of escapism that have been examined are television viewing (Kubey, 1986; Henning & Vorderer, 2001) and internet use (Turkle, 1997; Amichai-Hamburger, Kaynar, & Fine, 2007). Notably, Henning and Vorderer (2001) observed that individuals who utilized escape activities often had an intrinsic desire to avoid cognitively demanding activities, a desire that is referred to as a low need for cognition (Steinhart & Wyer, 2009). As technology progresses and problems become more multifaceted it is becoming more difficult to reach simple solutions, implying that need for cognition should also be increasing. However, research in internet use (Amichai-Hamburger et al., 2007) indicates that modern technology allows an individual to escape cognitive demands and engage in unproductive behaviors. Individuals who possess a lower need for cognition are more likely to use technology (e. g. computers) for game play rather than work, whereas individuals who possess a higher

need for cognition are more likely to focus mental energies on obtaining new information through the same devices.

Like historically studied activities, internet use has become a popular activity among a large population, but is too broad to explore for the scope of this research. However, the internet provides researchers with a population for study consisting of individual users with a high need for cognition and individual users with a low need for cognition. The dichotomy of high versus low need for cognition individuals suggests that, if Henning and Vorderer (2001) are correct, internet use can provide a mental route for escapism in individuals with a low need for cognition. An ideal method for escapism is provided by Massively Multiplayer Online Role Playing Games (MMORPGs, or RPGs), which provide the user with an alternate reality displayed in a predominately linear format, minimizing the need to make detailed decisions for progressing within the game. The majority of RPGs provide garden path solutions for every challenge, which caters to a lower need for cognition and supplies a preferable alternative to real life problem solving.

The proposed research will examine RPG players in relation to individuals who engage in an alternative escapism behavior by analyzing factors that are related to escapism. These factors include the amount of time spent engaging in escape activities, the frequency of engaging in escape activities, need for cognition, conscientiousness, impulse control, and the desire to escape from situational stressors. Analysis of these factors should show three main things. First, RPG gaming is related to a desire to escape from stressors, as indicated by an escapism measure. Second, individuals with high scores on the escapism measure should engage in their activity more frequently and for longer periods of time. Third, individuals who score high on the escapism measure will have lower need for cognition scores.

In addition to the main hypotheses, this research will also provide data for personality constructs historically associated with escapism. Individuals who have high scores on an escapism measure should score lower on need for cognition, conscientiousness, and impulse control when compared to peers who score low on escapism. Conscientiousness and impulse control scores should also positively correlate with need for cognition scores based on past research (Bertrams & Dickhäuser, 2012a; Bertrams &

Dickhauser, 2012b) which relates the three factors with stress management and coping ability. Higher scores in all three constructs should indicate a higher ability to cope with stressors, and should be reflected by lower scores on escapism measures for an individual.

## CHAPTER 2 REVIEW OF THE LITERATURE

### *Escapism*

Escapism is an often described concept within the psychological community that is briefly examined as a learned defense mechanism in many undergraduate psychology texts (e.g. Myers, 2008, pp 425-426; Weiten, 2007, pp 234; Hockenbury & Hockenbury, 2006, pp 575-576) as a way for individuals to protect their egos, or sense of self (Freud, 1923). Among the general population it is viewed as an avoidance of real work, real friends, real facts, and reality in general (Caleja, 2010). Despite the prevalence of the concept, empirical examination of escapism was not performed comprehensively until the latter half of the 20<sup>th</sup> century (Groid, 1970). The current research adopts Henning and Vorderer's (2001) definition of escapism as a defense mechanism that allows individuals to leave their reality in response to repetitive and unsatisfying life circumstances.

Escapism behavior patterns can manifest in a way that allows an individual to seek out escape in situations where the possibility of failure or embarrassment is high and in order to minimize exposure to external stressors, which are examples of unsatisfactory life circumstances. Consequently, consistent escapist behavioral patterns are linked to an individual's perception of themselves in terms of success and failure. The perception of personal failure occurs when the individual's internal performance assessment is more critical than that of external observers. An individual's assessment of failure results in negative self-perception and feelings of inadequacy in multiple dimensions of life during peer comparison (Greenburg & Musham, 1981), which are indicative of lower resiliency to challenges and stress when compared to one's peer group. Consequently, in order to avoid distress linked to negative self-perception the individual often opts to engage in activities that are familiar and have a high probability of success (Greenburg &

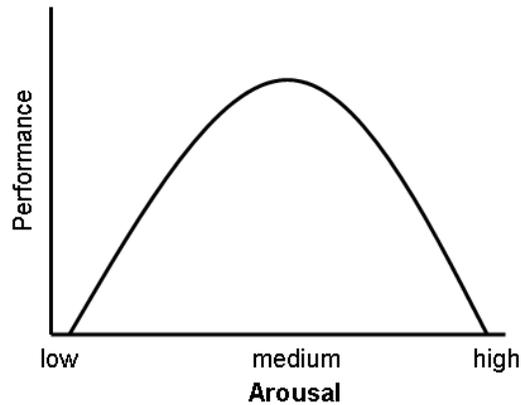
Musham, 1981). Conversely, the individual will avoid new activities and situations in which they predict a lower success rate and are subject to greater peer appraisal. Familiar activities allow the individual to avoid drastic differences between what an individual can do and what they think they can do, this reducing feelings of self-discrepancy and minimizing the severity of any perceived failure and the concomitant discomfort (Greenburg & Musham, 1981). Although conceptually simple, escapism is multifaceted because it is intertwined with other elements of human behavior. For example, escapism behaviors are representations of an individual's objective self-awareness, and escapism allows the individual to cope with stressors present in everyday life by engaging in behaviors that serve as positive reinforcement due to their high probability of success (Greenburg & Musham, 1981). By minimizing the chance of making mistakes, the individual has created a situation in which improvement of self-perception and minimization of ego damage can be achieved through utilizing positive reinforcement. However, this behavior can also produce more unrealistic beliefs for the individual in future instances by strengthening the belief that the individual is infallible and more resilient to stressors, when in actuality the individual's resiliency is reduced.

Ultimately escapism is a way in which individuals can utilize leisurely activities in ways that are immediately reinforcing psychologically, but can become behaviorally maladaptive (Stenseng, Rise, & Kraft, 2011). Maladaptive behaviors are patterns of behaviors that do not allow an individual to handle challenges, cope with stress, or accomplish his or her goals, or as any pattern of behaviors that may exacerbate the original problem which the individual presented (*Diagnostic and Statistical Manual of Mental Disorders, 4<sup>th</sup> ed., text rev.*; APA, 2000). Leisure activities can be used in maladaptive ways, which allows the individual to avoid specific stressors and to avoid negative facets that they perceive within themselves. This behavioral

pattern is performed purposefully, although most likely subconsciously, and results in a stunting of psychological growth (Stenseng et al., 2011). For example, typically healthy behaviors, such as team sports, can still meet the criteria for maladaptive behavioral patterns when an individual has an obsessive passion for the activity that overrules the individual's autonomy in regards to the activity itself and results in the individual over-engaging in the activity, placing elevated priority on the activity, engaging in the activity for excessive durations, or engaging in the activity at inappropriate times (Stenseng et al., 2011).

As previously indicated, the desire to escape stressors is functionally intertwined with other elements of behavior such as the Yerkes-Dodson law of sustained arousal (Yerkes & Dodson, 1908) which states that performance is impacted by an individual's current level of arousal. Performance is low when arousal levels are low, and increases with arousal levels up to an apex where stress and arousal impart maximum performance levels for the individual. As stress and arousal increase past optimal levels performance decreases, creating an inverted "U" function for performance (Yerkes & Dodson, 1908; see Figure 1). An illustrative example of the Yerkes-Dodson law (Yerkes & Dodson, 1908) is a college student who excels during the first half of the semester, but as the semester comes to an end and pressure increases, performance decreases due to anxiety and stress even if the workload is consistent.

*Figure 1.* Theoretical Representation of the Yerkes-Dodson Law of Arousal



*Figure 1.* Graph representation of the Yerkes-Dodson arousal law which states that an individual's performance is poor at both low and high extremes of arousal. Optimal performance occurs through medium arousal for short time periods.

In this example, escapism behaviors could be beneficial if individuals could utilize escapism in order to avoid feelings of anxiety brought on by more stressful demands, allowing them to maintain a higher level of academic performance when compared to their peers. By engaging in escape behaviors for a brief amount of time as the individual's arousal nears the apex, the individual can successfully reset his or her stress levels and avoid a decline in performance. When utilized in this fashion, escapism is almost entirely beneficial as it allows an individual to maintain peak productivity while their peers are experiencing a decline in performance. However, escapism could lose its benefits if the individual engages in escape activities too frequently or for sustained periods of time. Prolonged escapism behavior is more akin to running away from a situation and would interrupt long term productivity, which generally results in more negative feedback which in turn elicits a stronger desire to engage in escape behaviors.

There are two distinct forms of escapism: short term and beneficial and long term and maladaptive. Short term escapism allows an individual to take a brief reprieve from stress,

allowing the individual to come back to a task or situation feeling energized and more able to handle current stressors. However, short term escape can prelude long term escape because it can hinder the development of stress resiliency which results in the individual being unable to cope with simple, everyday stressors (Curşeu, 2006). Long term escape typically refers to behaviors that indicate that an individual is unable to handle stressors from a specific task, resulting in focusing on a more desirable task and avoiding the original task completely. Long term escape is indicative of maladaptive coping and is often viewed as pathological behavior (Stenseng et al., 2013).

Escapism is commonly associated with the highly negative aspects of chemical addiction found in drug and alcohol abuse. Sadava, Thistle, and Forsyth (1978) explored both of these activities outside of the classical addiction theory by utilizing an escape-specific lens. By focusing on the escapism aspects of drug and alcohol use they were able to find that environmental factors as well as internal stress can be a trigger for heavier drinking, particularly in drinkers who expected alcohol to provide them with feelings of relief (Sadava et al., 1978). The same was found in frequent drug users; the drug of choice was used more frequently due to the idea that the drug would provide feelings of relief during internally and externally stressful situations (Stenseng et al., 1978). Alcohol consumption and drug use are both learned and intentional activities that temporarily allow the individual to remove themselves from an unbearable situation, including any internal stressors that are perceived as personal faults (Sadava et al., 1978). The escape provided by alcohol and drug use is perceived as being easier for individuals who engage in these behaviors than trying to live up to unrealistic expectations that were created by personal design or through comparison to peers (Sadava et al., 1978).

Likewise, gambling has demonstrated similar components of negative and maladaptive escapism behavior. Ledgerwood and Petry (2006) empirically examined the escapism factors inherent in obsessive gamblers, and established a strong correlation between personality traits (e.g. neuroticism and loneliness) and gambling behavior. Individuals who gambled more frequently and for longer durations scored lower on measures of emotional stability (Ledgerwood & Petry, 2006). Wood and Griffiths (2007) also examined the emotional components of gambling in greater depth and established that gambling can alter mood states in individuals while the individual engages in gambling behaviors. Individuals with higher levels of depression and anxiety and a lower ability to cope with stress gambled more frequently, and reported engaging in avoidant behavior patterns in other facets of their lives such as work and familial responsibilities (Wood & Griffiths, 2007). Reid, Li, Lopez, Collard, Parhami, Karhim, and Fong (2010) clearly defined the differences between nonpathological gambling and pathological, and maladaptive, gambling by comparing individuals' scores on the *NEO Personality Inventory Revised*. Individuals who reported that they gambled frequently reported that instead of seeking to engage with peers socially they opted to gamble in order to avoid feelings of loneliness and boredom. These individuals had higher scores on neuroticism and lower scores on conscientiousness, as well as a greater desire to escape unsatisfactory situations and emotions (Reid et al., 2010).

The idea that activities can be used in order to actively avoid social interaction is a theme in other escapism research, such as Kubey's (1986) research on television viewing. Kubey (1986) found that individuals who are less educated and have more idle time are more likely to watch television rather than interact with others in order to escape from negative moods that occur during times of solitude when compared to peers who worked outside of the home and had

stable relationships. Individuals with stronger desires to escape their situations are far more likely to report low life satisfaction, which is attributed to negative self-images rather than external stressors. Kubey (1986) refers to this mindset as self-alienation, and individuals who exhibit self-alienation tendencies view television as a structured way to feel attentive and avoid the discomfort of feelings that result from a stagnant lifestyle in which cognitive analysis of daily events is undesired.

Henning and Vorderer (2001) expanded on the relationship found between television viewing and the desire to avoid cognitive analysis of life events, finding that individuals reportedly watch television in order to avoid more cognitively demanding activities. Individuals who reportedly watch television more frequently and for longer durations have significantly lower desire to be cognitively engaged when compared to peers who watch television sparingly (Henning & Vorderer, 2001). Those same individuals who watch television more frequently also reported higher levels of life dissatisfaction, and exhibited self-alienation tendencies (Kubey, 1986) meaning that television can be utilized as a means to escape any personal discomfort toward current lifestyles.

### *Need for Cognition*

The intrinsic desire to cognitively engage in intellectually challenging activities is referred to as need for cognition (Steinhart & Wyer, 2009). Individuals who have a higher need for cognition are more likely to seek out intellectually challenging activities, such as academia, while those with lower need for cognition are more likely to seek out activities that can be completed with minimal mental activity, such as television viewing. When examined in tandem with stress factors, individuals who possess a lower need for cognition are more likely to seek

out escape from many daily activities suggestion that these individuals have a much lower resiliency to stress than their peers (Steinhart & Wyer, 2009).

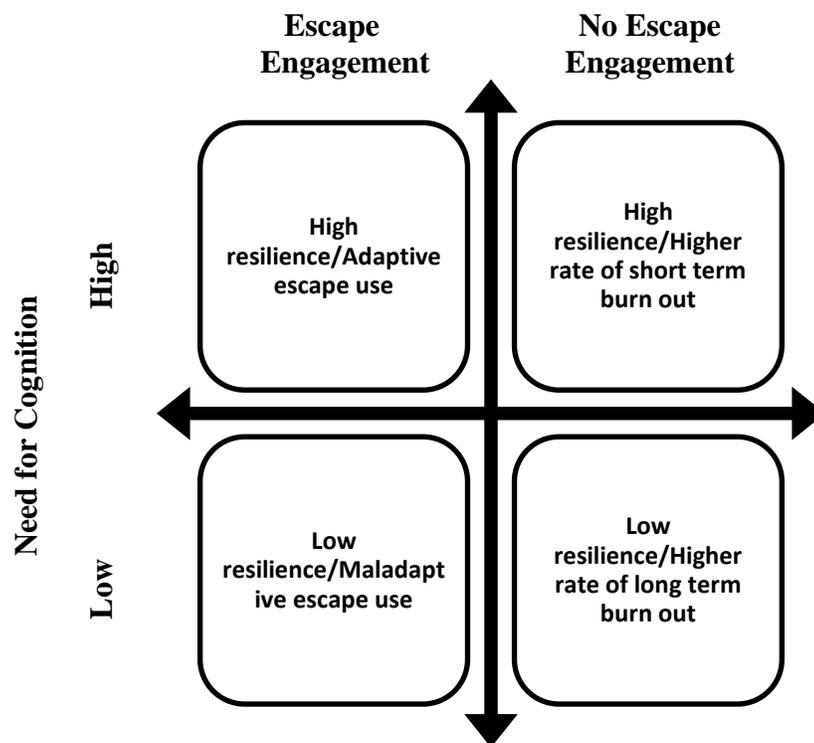
Need for cognition remains stable for an individual throughout life and reflects on the degree to which the individual will engage external and internal stimuli (Zwarun & Hall, 2012). The choice to analyze a set of stimuli extensively is associated with higher need for cognition and, inversely, the choice to analyze a set of stimuli minimally is associated with lower need for cognition. Need for cognition as a whole construct can be measured by the amount of enjoyment that an individual has during problem solving tasks that involve effortful thinking in comparison to the enjoyment that an individual experiences in situations where garden path solutions are provided (Sicillia, Ruiz, & Munuera., 2005).

#### *Need for Cognition and Escapism*

The current research hypothesizes that the relationship between need for cognition and escapism can be illustrated by a two by two dichotomy (see Figure 2). An individual who engages in escape behaviors and possesses a higher need for cognition will have a higher resiliency to daily stress. This individual is capable of monitoring stress levels within him or herself, and engaging in escape behaviors that allows them to reset their personal stress on the Yerkes-Dodson arousal curve (Yerkes & Dodson, 1908). Individuals who possess a high need for cognition and do not engage in escape behaviors also have a high resiliency to stress, but are more subject to the downward slope of the Yerkes-Dodson curve which often results in short term depletion of mental resources and lower motivation to take on new responsibilities (Curşeu, 2006). Individuals who possess a lower need for cognition and do not engage in escape behaviors have a low resiliency to daily stress and are more likely to experience long term reductions in motivation which results in following set patterns of behavior rather than seeking advancement.

Finally, an individual with lower need for cognition who engages in escape behaviors has low resiliency to stress and is more likely to engage in escape more frequently and for longer durations, never allowing their performance to reach productivity levels found at the apex of the Yerkes-Dodson arousal curve.

*Figure 2. 2X2 Dichotomy Explaining the Relationship Between Escapism and Need for Cognition*



*Figure 2.* The dichotomy shows the four different levels of the relationship between escapism and need for cognition: high need for cognition/escape engagement, high need for cognition/no escape engagement, low need for cognition/no escape engagement, and low need for cognition/escape engagement.

Henning and Vorderer (2001) implied a relationship between need for cognition, the intrinsic desire to engage in intellectual activities (Steinhart & Wyer, 2009), and escapism

behaviors. An individual's need for cognition can be used to predict behavioral patterns in every aspect of an individual's life, particularly those behavioral patterns that are oriented towards instant gratification (Hittner, 2009). For instance, an individual with low need for cognition will typically engage in activities that they are familiar with and proficient at while simultaneously avoiding activities that are new and have a perceptually higher difficulty (Sicillia et al., 2005). The individual perceives the familiar activity as being rewarding, and new activities are perceived as aversive with a higher probability of personal failure (Sicillia et al., 2005). Individuals with lower need for cognition are intrinsically motivated to avoid failure and, consequently, rely more on their peers to make decisions in situations where cognitive evaluation is necessary. When the low need for cognition individual is forced to make a decision the decision is more likely to be based on aesthetic appeal or ease of implementation rather than rational conclusion and factual information (Amichai-Hamburger, Kaynar, & Fine, 2007). It is the low need for cognition individual that relies heavily on a garden path to reach a logical conclusion.

Conversely, task related research has shown that individuals who possess higher need for cognition are more likely to think rationally without prompting, using logic and factual information in order to reach a viable conclusion (Curşeu, 2006). In addition, Hittner (2004) demonstrated that need for cognition scores are positively correlated with verbal skills, conscientiousness, openness to new experiences, sensation seeking, and self-esteem which are all related to healthy social interactions with peers. Conversely, need for cognition scores are negatively correlated with anxiety and neuroticism, two traits that are strongly and positively correlated with the desire to escape stressful situations (te Wildt, Putzig, Lampen-Impkamp, Zedler, Weise, Dillo, & Ohlmeier, 2010).

An individual's need for cognition can affect many facets of an individual's life and can also be affected by a multitude of external stimuli. Steinhart and Wyer (2009) examined need for cognition through a specific, extrinsic lens in order to clearly explain individual differences that are present. By focusing on extrinsic rewards, which were separated into positive outcomes due to approaching a situation, and avoiding negative outcomes by avoiding negative outcomes, the motivations of an individual could be understood more expansively. The desire to avoid negative outcomes is present in all individuals, but only individuals with higher need for cognition were interested in avoiding tasks specifically viewed as being irrelevant to the situation rather than tasks that were considered challenging and relevant (Steinhart & Wyer, 2009). It is understood that individuals with higher need for cognition possess a stronger ability to weigh consequences for their actions, including refusing to complete a task, and were more interested in using time and resources efficiently (Steinhart & Wyer, 2009). This finding was stable across different situations, but need for cognition had the strongest effect on behavior during tasks that were intellectual in nature or scope (Steinhart & Wyer, 2009).

Need for cognition also has an impact on an individual's ability to use self-control, or to avoid instant gratification for greater benefits later on (Bertrams & Dickhäuser, 2012b). Self-control can best be understood by comparing it to a muscle; when self-control is used repeatedly it gets stronger and can be used for longer periods of time. However, there is a point in which self-control becomes fatigued and it cannot be used again until it has had sufficient time to rest (Bertrams & Dickhäuser, 2012b). Individuals with higher need for cognition tend to have better self-control capabilities, and individuals possessing lower need for cognition have weaker self-control and more difficulty controlling impulses (Bertrams & Dickhäuser, 2012b). There is also a positive correlation between need for cognition, self-control, and coping with negative emotions

and events. A greater ability to cope with negative emotions is present in individuals with higher need for cognition and stronger self-control when compared to peers who possess a lower need for cognition (Bertrams & Dickhäuser, 2012a). Higher need for cognition and strong self-control is typically characterized by an increased ability to perform executive functions which leads to more success and a greater resiliency to stress and negative outcomes, as well as an elated mood across various situations. Conversely, lower need for cognition and poor self-control capabilities can result in negative social behaviors, such as overeating and procrastination, which can lead to the development of lower self-esteem and overall depressed affect across different situations (Bertrams & Dickhäuser, 2012a).

External praise, particularly the praise that occurs in an academic setting, is a relevant factor to the development of higher need for cognition and can be linked to the level of success that an individual earns throughout life (Giles, Pankratz, Ringwalt, Hansen, Dusenbury, & Jackson-Newsom, 2010). Praise is significantly more important for individuals who possess a greater level of impulsivity as it provides a healthy desire to achieve success through completing tasks rather than engaging in harmful behaviors (Giles et al., 2010). When high need for cognition is properly developed it can be measured through an individual's attitude formation and attitude consistency (Fleischhauer, Enge, Brocke, Ullrich, Strobel, & Strobel, 2010). Individuals with higher need for cognition have more stable attitudes and temperaments and they are more open to positive experiences and maintaining an open mind that allows for more information to be accumulated and integrated into their lives (Fleischhauer et al., 2010).

### *Escapism and RPGs*

As the proliferation of television introduced a novel means of escape, the increase of technological advances has led to numerous other venues of escape for individuals possessing

either lower or higher need for cognition, although most of the escape opportunities are designed to minimize cognitive demands. Consequently, more recent research has expanded escapism from historical constants (e.g. gambling, drug use, etc.) to modern inventions such as the internet and virtual realities. Within the psychological community there are two popular interpretations for the increased use of the internet, either the internet provides groups with a novel and parallel world through which individuals can interact with others, or the virtual realities that exist compete with the real world in such a way that there is a reasonable margin for abuse and addiction (te Wildt et al., 2010). The second interpretation is gaining popularity and plays a role in the addition of internet addiction to the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-V, 2013). In light of the decision to approach internet use from an addiction paradigm, researchers have begun examining the relationship between internet usage and the psychological effects that the internet has on various populations. A popular focus for the current line of research is the different types of activities that the internet provides and the escapism and avoidance properties that drive individuals towards internet activities.

Turkle (1997) interviewed individuals who interacted with others through online forums called Multi-User Domains (MUDs). Individuals who regularly engaged in social interaction through MUDs reported that they did so because the MUDs provided an opportunity for the individual to turn parts of his or her mind on and off, thereby increasing the ability to escape from stressful situations and surroundings (Turkle, 1997). Individuals also reported that MUDs provided a safe environment in which different facets of the self could be explored without fear of judgment because peers were engaging in the same types of behavior (Turkle, 1997). The ability to explore oneself without facing negative consequences allowed every individual on the

MUDs to create a self that he or she could relate to more, minimizing self-alienation and increasing the desirability of the internet as a means to escape (Turkle, 1997).

Using the internet to create a more desirable self can be related back to the addiction and escapism research of Sadava, et al. (1978) and has been correlated with other psychological disorders in terms of comorbidity. Te Wildt, et al. (2010) examined internet use in terms of comorbidity by utilizing the *Symptom Checklist* (SCL-90R) as a measurement of distress levels that an individual reports in tandem with internet use behavior. An analysis of the SCL-90R provided five key factors that determine if internet use is pathological: how many days per week the internet is used recreationally, how many hours per day the internet is used, how many hours per day an individual plays on a computer, and how many e-mail accounts an individual reports. These factors have a significant, positive correlation with psychological factors such as anxiety, depressed mood, insecurity, compulsivity, dissociative experiences, and paranoid ideation (te Wildt et al., 2010), all of which are common in individuals who engage in other escape behaviors such as drug and alcohol use and gambling (Sadava et al., 1978; Ledgerwood & Petry, 2006; Wood & Griffiths, 2007; Reid et al., 2010).

One of the more popular forms of online communication is the Massive Multiplayer Online Role Playing Game (MMORPG or RPG) (te Wildt et al., 2010). RPGs provide gamers with an immersive world in which they can create their own characters, or avatars, that are coherent with how the individual perceives him or herself and can interact within the more desirable virtual world that while engaging in adventures (Bessière, Seay, & Kiesler, 2007). An individual can decide to interact with the virtual world around him or her either alone or in larger groups composed of other avatars. This versatility allows the individual to fulfill both social and

nonsocial goals similar to those found within reality (Li, Liao, & Khoo, 2011) and provides an easy means for escape from the real world and its demands (Bessièrè et al., 2007).

Caleja (2010) states that individuals can view the internet, specifically internet games such as RPGs, as being more real than reality, and expanded on the conceptual argument that RPGs provide a way to escape reality for two primary reasons. First, RPGs embody an alluring new reality that is composed of unexplored worlds and new individuals to interact with. Second, RPGs relate to the common perception that play and games are the polar opposites of work and stress (Caleja, 2010). RPGs are also complex entities that must provide an easy route of escape as well as provide carrying affordances for puzzle solving and decision making in order to maintain the interest of all players (Caleja, 2010). The fictional components of the game provide a space that is part of the world in which it is played yet outside of the real world which individuals seek to escape, thus separating gaming from general internet use and emphasizing avoidant thought patterns that are present in individuals who regularly engage in escape behaviors (Caleja, 2010). There is also a strong implication that the individual who plays RPGs must possess some trait that makes their internet use different from those who do not play RPGs; namely, the individual must desire to maintain the fiction of the game despite other obligations.

Bartle (1996) explored different factors that individuals reported as reasons for engaging in RPG playing behavior. The factors allowed for a categorization of gamers into one of four labels: those who are achievement seekers, those who game in order to explore new territories, those who enjoy socializing with other players, and those who game in order to engage in socially sanctified violent behaviors (Bartle, 1996). Each of these variables correlates with neuroticism, conscientiousness, and extraversion, and can hypothetically provide the degree to which an individual may seek escape within RPGs based on personality research in the scope of

escapism behaviors (Bartle, 1996). It can be postulated that these categories also are related to the two by two dichotomy of need for cognition discussed earlier. For example, the individual who plays an RPG in order to achieve goals within the game should arguably have higher need for cognition than the individual who plays with the sole purpose of socializing, although both of them engage in a form of escape behavior.

Yee (2006) expanded on Bartle's research, but argued that individuals fit into one of only three gamer motivation variables: achievement, social interaction, and immersion. Under this simplified categorization individuals who game for the achievement motivations are seeking to level up their avatar and gain any special skills through additional quests that may fall outside of the main story line. Individuals with a social interaction motivation are hoping for interaction with other players around them, excluding all nonplayer characters that are generated by the game designers. Finally, the individuals who play an RPG within the immersion category are seeking an escape into the game world in order to forget about personal problems (Yee, 2006). Immersion is conceptually equivalent to escapism and highly immersive individuals tend to score higher on neuroticism and the desire to escape than their peers who fit into other motivation categories (Van Looy, Courtois, de Vocht, & de Marez, 2012).

Caleja (2010) defines a "magic circle" wherein an RPG gamer balances a dual-world ideology where there are very real spatial, temporal, and psychological boundaries between the games and the real world. Although these distinctions may appear obvious to the nongaming individual, those who engage in pathological and obsessive RPG play begin to blur the lines between reality and game (Kallio, Mäyrä, & Kaipainen, 2011). The inability to distinguish between the game world and reality is correlated with a gamer's intensity (how long an individual plays and how well they maintain concentration while playing), sociability (an

individual's personal space maintained both in and outside of the game), and the access that an individual has to the gaming environment (Kallio et al., 2011). There can also be a deeper problem that is linked to poor cognitive abilities for the gamer who struggles with understanding the subtle relationships and differences between fiction and reality (Zwarun & Hall, 2012) creating a stronger tendency to become a pathological gamer. Individuals who game pathologically typically have higher gaming intensities and lower sociability, a combination that results in a greater inability to determine which reality is important and which is an escape (Kallio et al., 2011).

Although it has not been explicitly stated, research has hinted that there is a connection between escapism behaviors and an individual's need for cognition. An individual who possesses a lower need for cognition often scores higher on measures of avoidance, which is related to the desire to engage in escape behaviors (Steinhart & Wyer, 2009). Capone and Wood (2009) found that individuals who reportedly consumed alcohol to escape from their problems had lower need for cognition than individuals who drank more casually and in social settings. Reid, et al. (2010) reported that gambling could also provide a means of escape, and Yee's (2006) immersion categorization of gamer type provides another outlet for escapism. Due to the stability of individual need for cognition, frequent engagement in any escape behavior should be paired with lower scores on a need for cognition measure.

The current research will include an analysis of RPG playing habits and need for cognition in comparison to escape activities that were researched in the past. Due to the nature of current RPGs, primarily those that are solely accessed online, it is crucial to solidify the relationship between internet use habits and need for cognition. In most cases internet sites that are visually stimulating, such as the virtual realities of games, are more desirable to an individual

with a lower need for cognition (Sicillia et al., 2005). Conversely, an individual with a higher need for cognition is more likely to visit websites that provide some form of information or some type of intellectual challenge (Sicillia et al., 2005). The fact that individuals with lower need for cognition tend to avoid intellectually stimulating websites relates back to the appeal of aesthetically pleasing stimuli and a garden path solution to most problems (Amichai-Hamburger et al., 2007).

In its entirety, the internet is capable of producing a novel environment for users (Shi, Chen, & Tian, 2011) which is made apparent by the variety of websites that are available. A common characteristic of most websites is that they are able to provide users with things to do that require little to no complex thought, increasing the appeal of the internet to individuals with lower need for cognition, and opening an avenue of unhealthy internet use (Shi et al., 2011). The degree to which internet use is unhealthy is typically reflected in the duration that an individual remains on the internet and the purpose (e.g. work or play) that the individual has for using the internet (Shi et al., 2011). RPG sites are a prime example of an escapism means that allows for an individual to remain immersed in the internet for long durations while ignoring the demands of the real world.

### *Personality and Escapism*

The relationship between need for cognition and escapism comes down to the relationship between need for cognition and other personality constructs such as conscientiousness and impulse control. The specific personality constructs addressed are negatively correlated with escapism tendencies, leading to a hypothesis that a high score for escapism will be related to low scores in need for cognition, conscientiousness, and impulse control. RPGs are a common and readily available means for escape for many individuals and

can provide the psychological community with a deeper understanding to the complex system that leads to pathological escape behaviors in some individuals.

### CHAPTER 3 METHODOLOGY

#### *Participants*

The sample included 78 participants who were enrolled in psychology courses at the University of Central Missouri. Of the 78 participants, 14 were excluded due to incomplete surveys, which included any survey with at least one unanswered question because all measures required absolute completion to obtain a score. The remaining 64 participants (*Male* = 12; *Female* = 52) were at least 18 years of age ( $M = 21.67$  years;  $SD = 6.82$  years).

#### *Materials*

Materials included a forced choice (yes or no) question to assess participant identification as an RPG player (see Appendix A) and a packet of self-report questionnaires to assess four different traits. The measures of escapism behaviors, both in self-identified gamers (Yee, 2006; see Appendix B) and in self-identified nongamers (see Appendix C) were composed of seven questions rated on a 1 (very inaccurate) to 5 (very accurate) scale. The measure for gamers had a Cronbach's alpha of .70, but the measure for nongamers has not been tested for validity for the current study. The Need for Cognition measure (Henning & Vorderer, 2001; see Appendix D) includes eight questions measured on a 1 (not at all true for me) to 6 (completely true for me) scale, and a Cronbach's alpha of .72. Conscientiousness was measured with a 13-item questionnaire (Hofstee, de Raad, & Goldberg, 1992; see Appendix E) with a 1 (very inaccurate) to 5 (very accurate) scale and a Cronbach's alpha of .75. Finally, Impulse Control was measured with an 11-item questionnaire (Hofstee et al., 1992; see Appendix F) on a 1 (very inaccurate) to 5 (very accurate) scale and a Cronbach's alpha of .78. At the end of the packet was a brief demographics questionnaire (see Appendix G) that included questions about academic year,

frequency and duration of escapism behaviors, personal experience in and outside of leisure activities, reasons for engaging in leisure activities, and multitasking tendencies.

*Procedure*

Upon entering the research room participants received an informed consent form explaining their rights and containing contact information for the researcher (see Appendix H). After consent was obtained, the participant received the packet of materials. Each questionnaire within the packet was preceded with written instructions for completion, allowing the participants to work at their own pace. The researcher was present to answer any questions. Upon completion of the questionnaire packet the participant was read a debriefing statement (see Appendix I).

## CHAPTER 4 RESULTS

### *Between Group Differences*

An independent samples *t*-test was conducted comparing scores between self-identified gamers and nongamers on the gamer escapism measure (Yee, 2006). The scores for this measure were calculated by reverse scoring item 2 of the measure, and then summing all responses. Higher gamer escapism measure scores reflect a higher likelihood that the participant would engage in RPG playing to escape situational stressors. There was a marginally significant difference between self-identified gamers ( $M = 23.87$ ,  $SD = 6.12$ ) and nongamers ( $M = 21.00$ ,  $SD = 5.20$ ) on the gamer escapism measure,  $t(62) = 1.99$ ,  $p = .051$ ,  $r^2 = 0.06$  indicating that self-identified gamers are marginally more likely to select RPG playing as a method of escape compared to their nongamer peers.

A second independent *t*-test analysis was conducted comparing scores on the nongamer escapism measure, which applies to any form of escapism that is not gaming oriented, between self-identified gamers and nongamers. For this measure the total score was calculated by reverse scoring item 2 and then summing all of the response values. Higher scores on this measure reflect a higher likelihood to engage in general nongaming leisure activities in order to escape situational stressors. There was not a significant difference between gamers ( $M = 23.70$ ,  $SD = 5.70$ ) and nongamers ( $M = 23.59$ ,  $SD = 4.99$ ) on this measure,  $t(62) = .08$ ,  $p = .936$ ,  $r^2 < .01$ . These results indicate that there was no significant difference between gamers and nongamers in terms of desire to engage in escape behaviors.

An independent samples *t*-test was conducted to compare gamer and nongamer scores on the need for cognition measure. Scores for this measure were calculated by reverse scoring items 4 through 8, and then summing all of the responses. Higher scores on need for cognition reflect a

higher preference for cognitive challenges. The results violated Levene's test of variance so equal variances were not assumed. The  $t$ -test failed to indicate a significant difference between gamers ( $M = 34.00, SD = 7.67$ ) and nongamers ( $M = 32.73, SD = 4.30$ ) on need for cognition,  $t(62) = .73, p = .470, r^2 = .01$ .

An independent samples  $t$ -test was conducted comparing gamers and nongamers on scores for conscientiousness. The conscientiousness score was calculated by reverse scoring items 11 through 20 on the conscientiousness measure and then summing all of the reported values. Higher scores on conscientiousness reflect a larger awareness of how individual behaviors affect others. There was not a significant difference between gamers ( $M = 75.22, SD = 9.91$ ) and nongamers ( $M = 78.15, SD = 10.32$ ) on conscientiousness,  $t(62) = -1.10, p = .274, r^2 = .02$ .

A final independent  $t$ -test was calculated to compare gamers and nongamers on a measure of impulse control. Impulse control scores were calculated by reverse scoring items 3 through 11 and summing all of the reported values. Higher scores on this measure reflect a better ability to monitor and control individual behavior. There was not a significant difference between gamers ( $M = 38.35, SD = 5.87$ ) and nongamers ( $M = 37.22, SD = 6.96$ ) on impulse control,  $t(62) = .66, p = .514, r^2 = .01$ . These results indicate that neither group had a better ability at monitoring and controlling personal behavior.

### *Correlational Relationships*

In addition to the analyses of differences in escape behavior between gamers and nongamers, multiple correlations were run to assess the relationship between personality traits and escapism scores. Two Pearson  $r$ s were computed between scores on the gamer escapism measure and scores on the nongamer escapism measure. The correlation was statistically

significant,  $r(21) = .802, p < .001, r(43) = .477, p = .002$  for both self-identified gamers and nongamers, respectively. This indicates that for gamers scores on one measure can explain approximately 64% of scores on the other, and for nongamers scores on one measure can explain approximately 23% of scores on the other. A desire to escape by playing RPGs was highly correlated with the desire to escape through different activities for the participants of this study.

A Pearson  $r$  was computed for the gamer escapism scores and the frequency of engaging in escapism behaviors as reported on the demographics questionnaire. The results were nonsignificant,  $r(64) = -.008, p = .952$ . A second Pearson  $r$  was computed for gamer escapism scores and the typical duration of engaging in escape behaviors as reported on the demographics questionnaire. The results were also nonsignificant,  $r(64) = .198, p = .117$ . These results indicate that higher scores on the gamer escapism measure were not reflected in self reports of more frequent escape behaviors or engaging in escape behaviors for longer periods of time.

Similar analyses were computed for the nongamer escapism measure. A Pearson  $r$  yielded nonsignificant results for self-reported frequency of escape behavior,  $r(64) = .092, p = .471$ . A second Pearson  $r$  was computed for nongamer escapism scores and the self-reported duration of escape behaviors. The results for this analysis were also nonsignificant,  $r(64) = .115, p = .366$ . Higher scores on the nongamer escapism measure did not reflect a desire to engage in escape behaviors more frequently or for longer durations.

### *Personality Traits and Escapism*

Escapism research in the past focused on behavioral trends and personality traits (e.g. Groid, 1970; Henning & Vorderer, 2001; Bertrams & Dickhäuser, 2012a; Bertrams & Dickhäuser, 2012b; Shi et al., 2011). In following with this trend, multiple Pearson's  $r$ 's were run that measured possible relationships between need for cognition, impulse control, and

conscientiousness. These factors were predicted to be strongly and positively correlated with each other.

### *Nongamers*

For the self-identified nongamer group, a Pearson  $r$  was computed between need for cognition and conscientiousness, which yielded significant results,  $r(41) = .409, p = .002$ . For this group, a higher need for cognition score typically predicted a higher conscientiousness score. A second Pearson  $r$  was computed for impulse control and conscientiousness, yielding marginally significant results,  $r(41) = .298, p = .058$ . Nongamer scores on impulse control can be used to explain only 8.9% of scores for conscientiousness. Finally, a Pearson  $r$  was computed between need for cognition and impulse control. The results were nonsignificant,  $r(41) = -.192, p = .228$ , indicating that need for cognition and impulse control were not closely related for nongamers in this study.

A Pearson  $r$  was computed between need for cognition and the nongamer escapism measure. The results were nonsignificant,  $r(41) = .195, p = .222$ , indicating that scores on one measure could not be predicted by scores on the other measure. A similar analysis was computed for need for cognition and the gamer escapism measure, which also yielded nonsignificant results,  $r(41) = .077, p = .632$ . Two more Pearson  $r$ 's were computed for the escapism measures and conscientiousness. For the nongamer escapism measure and conscientiousness, the results were nonsignificant,  $r(41) = .217, p = .173$ . Results for the gamer escapism measure and conscientiousness were also nonsignificant,  $r(41) = .194, p = .225$ . The measure of conscientiousness was not significantly related to either measures of escapism used in this study. Finally, two Pearson's  $r$ 's were computed between scores on the two escapism scores and impulse control scores. The nongamer escapism measure did not yield a significant relationship

with impulse control,  $r(41) = .023$ ,  $p = .884$ . The gamer escapism measure also yielded nonsignificant results,  $r(41) = .048$ ,  $p = .766$ . Among this participant group, impulse control was not closely related to either the gamer escapism measure or the nongamer escapism measure.

### *Gamers*

For the self-identified gamer group, a Pearson  $r$  was computed between need for cognition and conscientiousness, which yielded marginally significant results,  $r(23) = .410$ ,  $p = .052$ . The marginally significant correlation between need for cognition and conscientiousness is consistent with the results for nongamers. For this group, need for cognition scores could estimate conscientiousness scores beyond a chance level. A second Pearson  $r$  was computed for impulse control and conscientiousness, and unlike nongamers, failed to yield significant results,  $r(23) = .167$ ,  $p = .445$ . Finally, a Pearson  $r$  was computed for need for cognition and impulse control, which yielded nonsignificant results,  $r(23) = .271$ ,  $p = .211$ .

Two Pearson's  $r$ 's were computed between scores on the two escapism measures and need for cognition measure. The analysis for the gamer escapism measure and need for cognition yielded nonsignificant results,  $r(23) = -.033$ ,  $p = .881$ . The results for the nongamer escapism measure and need for cognition were also nonsignificant,  $r(23) = .053$ ,  $p = .810$ . This indicates that there was not a significant relationship between escapism tendencies and need for cognition levels within the gamer population.

A similar analysis was computed for scores between both escapism measures and conscientiousness scores. The first Pearson  $r$  for nongamer escapism and conscientiousness yielded nonsignificant results,  $r(23) = -.128$ ,  $p = .561$ . The gamer escapism and conscientiousness measure also yielded nonsignificant results,  $r(23) = .167$ ,  $p = .445$ . There was

not a significant relationship between conscientiousness and escapism tendencies within this population.

Two final Pearson's  $r$ 's were computed between scores on the two escapism scores and impulse control scores. The nongamer escapism measure did not yield a significant relationship with impulse control,  $r(23) = -.165, p = .452$ , and the correlation between the gamer escapism measure and impulse control was also nonsignificant,  $r(41) = -.176, p = .422$ .

#### *Frequency and Duration*

Two Pearson's  $r$ 's were computed between frequency of escape behavior and scores on the two escapism measures. The nongamer escapism measure did not yield a significant relationship with frequency of escape behavior,  $r(64) = .115, p = .366$ , and the correlation between frequency of escape behavior and the gamer escapism measure was also insignificant,  $r(64) = .198, p = .117$ .

A final set of Pearson's  $r$ 's were computed between the average duration of escape behavior and scores on the two escapism measures. The nongamer escapism measure did not yield a significant relationship with duration of escape behavior,  $r(64) = .092, p = .471$ . The relationship between duration of escape behavior and the gamer escapism measure was also nonsignificant,  $r(64) = -.008, p = .952$ .

## CHAPTER 5 DISCUSSION

The results from the present study did not extend previous research findings (e.g. Henning & Vorderer, 2001; Bertams & Dickhäuser, 2012a; Bertrams & Dickhäuser, 2012b) to differences between RPG gamers and nongamers. Henning and Vorderer (2001) and Bertrams and Dickhäuser (2012), found significant differences between individuals who utilize media to escape and those who escape through other means in levels of need for cognition, conscientiousness, and impulse control. Consequently, a significant difference between gamers and nongamers was anticipated for need for cognition, conscientiousness, and impulse control measures. The failure to obtain significant differences similar to those reported by Henning and Vorderer (2001) and Bertrams and Dickhäuser (2012) could indicate two possible things for escapism research. First, engaging in playing RPGs results in similar mental states when compared to engaging in a nonvirtual escape activity (e.g. lowered impulse control and cognitive processing). The similarities are reflected in comparable scores on need for cognition, conscientiousness, and impulse control measures between gamers and nongamers. If RPGs are initiating the same behavioral pathways, then future research should examine this trend with other virtual stimuli. Second, need for cognition, conscientiousness, and impulse control may not be as closely related to escapism as originally demonstrated.

The current research also examined two specific factors of escapism: frequency of engaging in escape behavior and the average duration of engaging in an escape activity. Previous research (Bertrams & Dickhäuser, 2012a) suggested that higher levels of escape desire will result in both higher frequency and longer durations of escape behavior. However, the present data set did not reflect these relationships. The absence of these relationships could indicate that

escapism activities may be viewed as something other than an escape from stressors, such as a way to socialize with peers.

In the current research we also sought to examine the relationships between need for cognition, impulse control, and conscientiousness. Henning and Vorderer (2001) and Bertrams and Dickhäuser (2012a; 2012b) demonstrated that the three factors are all closely related, and that scores for one trait can be used to accurately predict scores for the other two for anyone who engages in any escape behaviors. However, results from the current study indicate that the relationships were not consistent for the gamer and the nongamer participant groups. For the nongamer participants, a significant relationship existed between need for cognition and conscientiousness. In the gamer group there a marginally significant relationship between need for cognition and conscientiousness. Impulse control was not related to any additional factors in this study, which implies that escapism patterns may not be impacted by how well an individual can monitor and control his/her own behavior. The drive to escape may be singularly related to cognitive effort.

The primary goal of the current research was to support the contention that RPG playing is a new method for escaping external stressors. Since there were no significant differences between gamers and nongamers on either escapism measure, it is possible that gaming and other methods of escaping (e.g. drinking, socializing, television, etc.) provide similar levels of stress avoidance. The results also show some support that RPG playing can be another efficient method for escaping external stressors when compared to historically studied methods (e.g. sexual swinging, drugs, alcohol, etc.). However, past research (e.g. Henning & Vorderer, 2001; Bertrams & Dickhäuser, 2012a; Bertrams & Dickhäuser, 2012b) implicates that individuals who score high on escape measures should score low on need for cognition, impulse control, and

conscientiousness. In this study there were no significant inverse relationships found between these factors in either participant group, which could suggest that RPGs are utilized for tasks other than escape. Yee (2009) suggested that RPGs could also allow a player to gain achievements, which indicates a high drive for success, and for socializing with a larger group of individuals.

The reasons that participants reported engaging in escape behavior were very similar to what Yee (2009) found in gamer motivation studies. Many participants indicated on the demographics questionnaire that they engaged in specific behaviors to avoid completing other tasks (e.g. homework assignments), to socialize with peers, and to feel successful at something (e.g. winning a game). These reasons were given by both gamers and nongamers, suggesting that the method of escape is less important than the reasons and rewards achieved by escaping.

The largest limitation for the current study is likely associated with unintended consequences from the wording of the forced choice question asking participants to identify as either gamers or nongamers. The forced choice question was selected based on research conducted by Yee (2009) in order to better identify individuals who play RPGs so that preferred escape behaviors (e.g. drinking, gaming, gambling, etc.) could be appropriately categorized. Although the question is appropriate in theory, the narrowed definition of a gamer could have resulted in confusion for the participants. The wording was intended to isolate RPG players from individuals who typically engage in other types of game play (e.g. first person shooter, puzzle, etc). The constraints may have caused confusion among the participants, leading to methodological issues with appropriate participant categorization. For example, individuals who consider themselves gamers in broad terms were forced to identify themselves as “nongamers” since they did not play RPGs. These participants may have still answered the questionnaire

packet in a manner consistent with their self-perception as a gamer. The inconsistent forced choice identification and personal assessment and survey responses could have resulted in a mixed data set that effectively randomized responses across groups, leading to nonsignificant differences between participant groups on all factors.

Another large limitation for the current study was the limited participant pool. The participants were primarily undergraduate students between the ages of 18 years and 25 years old. Their reasons and methods for escape may differ when compared to groups outside of academia. For example, individuals outside of academia will not have schoolwork as a primary stressor, and many nonstudents should be more likely to report family obligations and monetary commitments as stressors. When the stressors are different, it is not safe to assume that the level of stress perceived will be similar. Therefore, the drive to escape may not be comparable.

The preferred methods of escape may also differ. Nonstudents, who could be more likely to have full time jobs and careers, may have more financial stability. With stability, nonstudents would also have more money to spend on alternative means of escape (e.g. vacations). Students, however, tend to only hold part time jobs, with the majority of their spending relating to school and food charges. Internet provided by the universities may be one of the only escape paths that students have. Overall, the narrow participant pool resulted in an inability to generalize the results of the current study. Additionally, there were some questions in the participant packet that were unclear due to changes in common vernacular from when the measures were created to present time (e.g. "I shoot my mouth off"). This could have resulted in incorrect responses from the participants.

Due to these limitations, and the results from all analyses run, it would be beneficial to repeat this study with a larger and more varied population. It would also be beneficial to focus on

the relationships between escape tendencies and need for cognition, conscientiousness, and impulse control. The discrepancies between the current research and past research could provide some insight into changes in socially acceptable behavior.

The results from the current research hint that RPG playing is similar to previously studied escapism activities, which outlines an ever present desire to avoid stressors in new and increasingly immersive ways, such as RPGs. Due to the possible confusion of the forced choice questionnaire it is suggested that further research on the relationship between RPG playing and escapism should be conducted. Future research should examine RPG and escapism without utilizing a self-report categorization tool in order to obtain more accurate data from individuals. Furthermore, a more valid measure for escapism would be ideal rather than two separate escapism measures. By using one measure, the risk of participant confusion should be reduced. The null results of this study suggest that the measures used did not accurately reflect gamers versus nongamers. It is for this reason that future research should be conducted using a different categorization method and a singular escapism measure.

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## Appendix A

### Definition of Gamer for the Scope of this Research

For the scope of this research, a gamer is defined as an individual who plays any type of role playing game (e.g. table top, computer based, etc.) that involves creating a character, or avatar, and then interacting with others as that character. If you do not engage in any form of a role playing that involves the use of an avatar you will be placed in the nongamer group for the purpose of this research study.

Are you a gamer?    Y    N

## Appendix B

Please answer the following questions with your preferred leisure activity in mind. All answers will remain confidential, so please answer truthfully and to the best of your ability.

Escapism measure: Gamers

1. I like to try out new roles and personalities with my characters.

1	2	3	4	5
Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate

2. People who role-play extensively bother me.

1	2	3	4	5
Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate

3. I like the feeling of being part of a story.

1	2	3	4	5
Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate

4. I make up stories and histories for my characters.

1	2	3	4	5
Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate

5. I like the escapism aspect of the game.

1	2	3	4	5
Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate

6. Playing the game lets me forget some of the real-life problems I have.

1	2	3	4	5
Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate

7. Playing the game lets me vent and relieve stress from the day.

1	2	3	4	5
Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate

## Appendix C

Please answer the following questions with your preferred leisure activity in mind. All answers will remain confidential, so please answer truthfully and to the best of your ability.

Escapism measure: Nongamers

1. When I engage in my activity I feel like I am a different person with a different role.

1	2	3	4	5
Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate

2. People who are extensively or “over involved” in my activity bother me.

1	2	3	4	5
Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate

3. I enjoy feeling like I am living a narrative when I engage in my activity.

1	2	3	4	5
Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate

4. I put a lot of detailed research and thought into my activity.

1	2	3	4	5
Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate

5. I like the escapism aspect of my activity.

1	2	3	4	5
Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate

6. Engaging in my activity lets me forget some of the real-life problems I have.

1	2	3	4	5
Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate

7. Engaging in my activity lets me vent and relieve stress from the day.

1	2	3	4	5
Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate

## Appendix D

Please answer the following questions by circling the number that indicates how well you agree with the following statements. All answers will remain confidential, so please answer truthfully and to the best of your ability.

## Need For Cognition

1. I prefer complex to simple problems.  

1	2	3	4	5	6
Not at all true for me					Completely true for me
  
2. I tend to set goals that can be accomplished only by expending considerable mental effort.  

1	2	3	4	5	6
Not at all true for me					Completely true for me
  
3. I prefer a task that is intellectual, difficult, and important to one that is somewhat important but does not require much thought.  

1	2	3	4	5	6
Not at all true for me					Completely true for me
  
4. I find little satisfaction in deliberating hard and for long hours.  

1	2	3	4	5	6
Not at all true for me					Completely true for me
  
5. I would rather do something that requires little thought than something that is sure to challenge my thinking abilities.  

1	2	3	4	5	6
Not at all true for me					Completely true for me
  
6. Thinking is not my idea of fun.  

1	2	3	4	5	6
Not at all true for me					Completely true for me

7. I only think as hard as I have to.

1	2	3	4	5	6
Not at all true for me					Completely true for me

8. Simply knowing the answer rather than understanding the reasons for the answer to a problem is fine with me.

1	2	3	4	5	6
Not at all true for me					Completely true for me

## Appendix E

Please answer the following questions by circling the number that indicates how well you agree with the following statements. All answers will remain confidential, so please answer truthfully and to the best of your ability.

## Conscientiousness Measure:

1. I accomplish my work on time.
 

1	2	3	4	5
Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate
  
2. I do things according to plan
 

1	2	3	4	5
Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate
  
3. I am careful to avoid making mistakes
 

1	2	3	4	5
Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate
  
4. I keep my checkbook balanced
 

1	2	3	4	5
Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate
  
5. I like to plan ahead
 

1	2	3	4	5
Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate
  
6. I return borrowed items
 

1	2	3	4	5
Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate
  
7. I often forget to put things back in their proper place
 

1	2	3	4	5
Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate

8. I neglect my duties				
1	2	3	4	5
Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate
9. I take tasks too lightly				
1	2	3	4	5
Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate
10. I leave my work undone				
1	2	3	4	5
Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate
11. I do not plan ahead				
1	2	3	4	5
Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate
12. I put off unpleasant tasks				
1	2	3	4	5
Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate
13. I am often late to work				
1	2	3	4	5
Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate

## Appendix F

Please answer the following questions by circling the number that indicates how well you agree with the following statements. All answers will remain confidential, so please answer truthfully and to the best of your ability.

## Impulse Control Measure

1. I keep my emotions under control
 

1	2	3	4	5
Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate
  
2. I let others finish what they are saying
 

1	2	3	4	5
Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate
  
3. I demand attention
 

1	2	3	4	5
Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate
  
4. I react intensely
 

1	2	3	4	5
Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate
  
5. I talk even when I know I shouldn't
 

1	2	3	4	5
Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate
  
6. I often make a fuss
 

1	2	3	4	5
Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate
  
7. I shoot my mouth off
 

1	2	3	4	5
Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate

8. I am easily excited

1	2	3	4	5
Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate

9. I blurt out whatever comes into my mind

1	2	3	4	5
Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate

10. I barge in on conversations

1	2	3	4	5
Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate

11. I like to gossip

1	2	3	4	5
Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate

## Appendix G

## General Demographics

1. Gender:      Male   Female   Other
2. Age:      \_\_\_\_ years
3. School Status:      Freshman      Sophomore      Junior      Senior      Graduate      N/A
4. Preferred leisure activity for relieving stress (select one):
  - Reading
  - Drinking with friends
  - Drinking alone
  - Gaming (i.e. RPGs, MMOs, etc.)
  - Exercising
  - Playing sports
  - Eating unhealthy foods (sweets, burgers, etc.)
  - Watch television
  - Other: \_\_\_\_\_
5. I spend about \_\_\_\_ hours each week engaging in my activity.
6. I usually engage in my activity for \_\_\_\_ hours consecutively.
7. The most rewarding/satisfying experience I've had in the past 7 days:
  - happened during my activity
  - happened outside of my activity
8. The most annoying/infuriating experience I've had in the past 7 days:
  - happened during my activity
  - happened outside of my activity

9. Engaging in my activity (select all that apply):

- allows me to put off assignments
- negatively impacts my sleep schedule
- negatively impacts my social life
- allows me to avoid situations I don't want to deal with
- allows me to feel a sense of accomplishment
- other: \_\_\_\_\_

10. Please rank the following reasons that you engage in your activity from most important (1) to least important (3).

- \_\_\_ To escape from real-life
- \_\_\_ To achieve a specific goal related to your activity
- \_\_\_ To socialize with others

11. Do you typically do other things while you are engaged in your activity (i.e. multitasking)?

- yes
- no

## Appendix H CONSENT FORM

**Identification of Researchers:** This research is being conducted by Heather Ventura, a graduate student, under the supervision of Dr. Ken Carter, a professor. We are with the Psychology Department at University of Central Missouri.

**Purpose of the Study:** The purpose of this study is to validate a self-made measure of escapism with Yee's escapism measure for gamers (2006).

**Request for Participation:** We are inviting you to participate in a study on escapism tendencies. It is up to you whether you would like to participate. If you decide not to participate, you will not be penalized in any way. You can also decide to stop at any time without penalty. If you do not wish to answer any of the questions, you may simply skip them. You may withdraw your data at the end of the session. If you wish to do this, please tell us before you turn in your materials. Once you turn in the materials, we will not know which survey or test is yours.

**Exclusions:** You must be at least 18 years of age to participate in this study.

**Description of Research Method:** This study involves completing a demographics survey and a set of questionnaires. The survey will ask you about your gender, age, class rank, and leisure activities. The questionnaires look at the following traits: escapism tendencies, need for cognition, conscientiousness, efficiency, moderation, impulse control, and self control. This study will take approximately 20 minutes to finish. After you finish, I will explain the purpose of the study in more detail. You will also have a chance to ask questions. Please note that we cannot give you your individual results because the data are confidential.

**Privacy:** All of the information we collect will be confidential. We will not record your name, student number, or any information that could be used to identify you.

**Explanation of Risks:** The risks associated with participating in this study are similar to the risks of everyday life. Any medical treatments provided if an injury occurs will be at the expense of the participant.

**Explanation of Benefits:** You will benefit from participating in this study by getting firsthand experience in psychological research. You may also enjoy completing the questionnaires.

**Questions:** If you have any questions about this study, please contact me at [hev70920@ucmo.edu](mailto:hev70920@ucmo.edu) or my advisor Dr. Carter. He can be reached at [carter@ucmo.edu](mailto:carter@ucmo.edu) or at (660) 543-4074. If you have any questions about your rights as a research participant, please contact the Human Subjects Protection Program at (660) 543-4621.

If you would like to participate, please sign a copy of this letter and return it to me. The other copy is for you to keep.

I have read this letter and agree to participate.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Appendix I  
Debriefing Statement

Thank you for your participation in this research on escapism through activity engagement. You were asked to fill out a variety of questionnaires. The purpose of these questionnaires was to establish the relationship between escapism through activity engagement and a variety of personality traits that are related to escapism as a whole.

Final results will be available from during the spring semester. You may contact me at [hev70920@ucmo.edu](mailto:hev70920@ucmo.edu) if you are interested in the final results. All results will be grouped together, therefore individual results are not available. Your participation, including your name and answers, will remain absolutely confidential, even if the report is published.

If you have any questions or concerns regarding this research, please contact Heather Ventura at [hev70920@ucmo.edu](mailto:hev70920@ucmo.edu).