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**Investigating Whether Time in Power Corrupts Leadership in an Undergraduate  
Population between two Government Systems**

Dissertation submitted in partial fulfilment of the requirements for the degree of Bachelor of science (hons) in Psychology and Counselling.

**DECLARATION**

This work has not previously been accepted in substance for any degrees and is not being concurrently submitted in candidature for any degrees.

Signed ..... Elliott O'Donnell

Date ..... 21/03/2025

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This dissertation is being submitted in partial fulfilment of the requirements for the degree of ..... (Psychology and Counselling)

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**STATEMENT 2:**

This dissertation is the result of my own independent work/investigation, except where otherwise stated. Other sources are acknowledged by giving explicit references. A reference list is appended.

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I acknowledge the use of ChatGPT (<https://chatgpt.com/>) on 14 August 2024 to develop my vignettes into submission format using the prompt(s): 1. Please create a list of vignettes for a political game. 2. With the vignettes above, please develop a number of consequences involving a token economy.

I confirm that I have not presented any AI generated text as my own work. I confirm I have copies of my drafts, notes, and other resources I used before, and after the use of AI tools which I may be asked to provide in evidence.

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## **Abstract**

Research in leadership is broad within domestic organisations and several theories have arisen as to how leaders tend to behave differently. Moreover, research has investigated the process of politics and how adversarial individuals tend to grow more popular than moderates. In researching leadership in government settings, empirical research on issues surrounding different actions remains limited. The present study aims to introduce an original line of investigation into how governmental leaders from two types of governments behave, and whether time in office without the possibility of replacement affects a leader's ability to focus on a larger population's needs. Participants consisted of undergraduate students taking part in a lab experiment simulating a small society in the formation of Game theory. A non-parametric Mann Whitney U test was used to analyse results and proved non-significant; however, findings and trends from the data are considered, identifying a potential for further research within the conclusion.

## Literature Review

Leadership in government has often fallen out of favour across the world, especially in nations run by democratic institutions (Reykowski, 2020). Examples of faltering popularity can be gleamed from Vladimir Putin's decision to circumvent Russia's constitution to run for presidency for a fifth term (Gozzi & Scarr, 2021), The British Conservative government's handling of the Covid-19 Pandemic, (British Medical Association, 2024), and even President Trump possibly encouraging the public to storm the capitol of Washington D.C after the American presidential election would see him replaced (BBC, 2021). Government is a pivotal component to any nation and is often responsible for an array of factors including public safety, health, taxation and finance, defence, lawmaking, and so on. Yet, despite its instrumental and arguably quite powerful role in maintaining order and prosperity. It is an apparatus that often receives very little psychological research. Political psychology is a broad discipline that investigates areas of research such as war (Monroe et al., 2009), to more domestic concepts such as race and diversity (Brewer, 2009). However, in recent years, much of the area of study has focused on leadership roles within organisations and how executives treat staff and vice versa (Miklian & Katsos, 2024). But it must be pointed out that Government while comparable in some factors, is not similar to an organisation, and the level of power and influence between a regional manager of a company and a leader of a nation cannot be compared.

Rule of law is often cited as the primary basis for sustaining good practice of leadership, with a constitution being a primary means of chartering a governing body's power and establishing their limits and in theory, securing their aims in alignment with the people (Parry, 2012). But how often is that the case? As mentioned prior, Russia's constitution was defied, and many who criticised Vladimir Putin were arrested and silenced (Gozzi & Scarr, 2020;). Within the UK, not only would it be revealed that the Government chose to put the economy before the

public's health, but in 2024, they made the promise to return a national service, in spite of the fundamental British value of Individual Liberty (Parry, 2012). But such events can be observed throughout the world, from China's use of concentration camps in the Xingjiang region (Sudworth, 2018), to attempts at launching a Coup D'état in Peru (Buschschluter, 2022). In a manner of speaking, government, in its nebulous form and jurisdictions over both the state and subject, offers the opportunity for those in power to abuse their resources in favour of self interest. The reason for this is difficult to conclude. For instance, Mulgran (2007) hypothesized that successful leaders possess an indifference which allows them to preserve their positions by remaining flexible in their principles. In comparison, Bargh and Alvarez (2001), conclude that the actions of leaders and individuals in power are beholden to their individual differences, suggesting that they will not abuse their positions even if given the opportunity.

Fang and Xunwei (2016), suggest that it is the intention of the leader and concept of power that determines their behaviour, extrapolating that there is a difference between personalised and socialised power, with only personalised concepts acting as sources for corruption. This suggests that individualised power leads to a focus on the self and their interests, thus causing a disregard for others' needs. Corruption in a position of is typically described as an acceptance of bribery, cultivation of clandestine partnerships, and a general lack of integrity (Li et al., 2022).

Previous research on government and power has primarily focused on perceptions of power from the citizenry, via questionnaires and interviews, in which it is often expressed that high distance (the perceived physical/emotional distance between those in power and those without), and self-centeredness (a focus on the self with limits regarding others), lead to higher levels of intolerant perspectives on behaviour with organisational settings (Maner et al., 2012; Mayoral et al., 2020; Paramita et al., 2020). Moreover, a secondary focus, while

vastly limited in terms of research, observes governmental settings and how behaviour often becomes corrupted by power. Such a corruption is described as the acceptance of bribery and forming self-serving pacts with colleagues (Fang & Xunwei, 2016). This is important as there is a vast documentation of unpopular governments experiencing mass numbers of strikes, rioting, and even forceful replacement by their subjects.

Reykowski (2020) observed that a mix of adversarial politics and conflicts of interest within democratic institutions have led to a downward trend of polarising views and perceived disservices to one's host nation by those in office. The author, cites the Realistic Conflict Theory (Sherif, 1988) as a means of explaining that political rivals antagonise each other so fiercely as a means of securing more influence for themselves, and that each conflict is interpretable by each individual, therefore insinuating that power is an individually focused aspect within governing bodies (Reykowski, 2020). Sherif (1988), provides a strong argument for this in their Robber's cave experiment (Sherif et al., 1954/1961) in which they found that an us-and-them mentality can swiftly form when a competitive or rivalling nature is added into a dynamic. With twenty-two preadolescent boys split into two groups, the researcher found that a hierarchical structure can quickly form within a group, and that when both groups meet to compete in various tasks and resources they are more likely to engage with hostility, thus portraying the effectiveness of polarisation within intergroup dynamics. Moreover, due to this study being a field experiment taking place in a natural environment, the study boasts a high ecological validity. Onyango (2023), reflects on this experiment and concludes that while suffering from questionable ethical implications, Sherif et al.'s (1954/1961) study still holds strong indications to intergroup behaviour.

This is a notion that is supported by Barreto and Medina-Arboleda (2021), who observed the speeches of south American presidents across the continent and found that most cultivated a sense of "Us-ness" via phrases such as "We". This therefore suggests that a leader's language

has a strong influence on how their supporters think, which can build a particular social bond between a leader and their people to be credited in the future. Moreover, Gaertner et al. (2011) supports this through the development of a Common Ingroup Identity Model. They discuss how phrases such as “Us” and “Them” are often used to create biases between different groups, and by using more inclusive phrases such as “We”, large sums of prejudice can be avoided. Adding to this, Paramita et al. (2020), found that individuals who felt closer to individuals in power were more tolerable of poor behaviour, thus a link can be made between perceived popularity of a leader and perceived corruptibility.

This is supported by Williams (2014), who suggests that we as individuals naturally seek power, and that if threatened then we focus on retaining our positions over our duties, even at the expense of others. In addition, Fang and Xunwei (2016) add to this discussion by noting that this focus on power and the retention of it is primarily due to the position focusing on the personal duties, instead of the collaborative necessities involved. Despite that, Hartmann (2023), supports Reykowski’s claim that democracy dwindles in popularity due to growing socio-economic disparities affecting people’s emotional capabilities. Most notably, they conclude that negative emotions such as envy and hatred, spark more frequently when disparity is most prevalent. Thus, it can be argued that a particular emotional depth is required within a democratic government.

When it comes to inequality, Jost (2017), points out that such a scenario, along with an entrenchment of tradition, are by-products of conservative shifts in the face of crisis, which are often shared between both sides of the political spectrum, with many individuals experiencing a biased opinion of their particular political party, supporting the notion that power in politics promotes a sense of togetherness if a leader is perceived as strong. However, this also suggests that political power is individualistic. Such a notion can be supported by Steinberg (2018), who suggests that one’s nation must adopt laws and policies

which work in tandem with the public's opinion, further cementing the idea that strong political power is a result of direct cooperation between government and civilian. Adding to this, Jost's (2014) System Justification Theory suggests that this cooperation may be more citizen focused than originally believed, especially on an international level. For instance, Jost (2014) argues that it is commonplace for citizens to be biased towards their home nation's current governing systems due to possessing loose alignments in terms of religious and political beliefs, along with stereotyping other groups that would otherwise not fit in to their chosen organisations. The reason for this is hypothesised to be an unconscious behaviour to relieve distress and improve emotional well-being, as being a part of a greater group provides more comfort than being without (Jost, 2014).

In terms of adversarial politics, Maskor et al. (2021) finds compelling evidence to suggest that a promotion of one's own capabilities is not enough to earn a democratic vote. From their observations of previous elections, most notably, the US 2016 presidential election between Donald Trump and Hillary Clinton, they found that the candidate who was more aggressive during their debates and dismissive of their opposition's abilities, were typically the one to be voted into office. In addition to this, a study conducted by Guimaraes et al., (2017), found that a primary proponent of adversarial politics is the contention between fact and sentimentality. Using the UK's Brexit referendum as an example, they found that a majority of responses from both Remain and Leave were sentimental in nature, thus suggesting that on social media, choice in politics may be linked less to evidence, and more to emotion. This can be collated with Barreto and Madina-Arboleda's (2021), study of Latin American politicians, in which they studied the language of speeches given from political candidates from several nations including, Argentina, Chile, and Venezuela, among others. During this study, the researchers found that both socialist and conservative leaders used a similar language which portrayed an impression of usness and collaboration between the leader and the citizenry.

Therefore, there is a strong presence of sentimentality linked to politics, and this factor can be concluded to be dependent on cultural norms. This may thus support the notion that politics is devolving into a polarising mechanism as opposing groups continue to contend with one another.

Corruption and malintent on the other hand, are often concluded to be multi-faceted issues. For instance, Fang and Xunwei (2016) conclude from their studies that two types of leadership exists; Socialised leadership, and Personalised leadership. They argue that a socialised leader possesses an inherent focus on cooperation and involving one's colleagues and subordinates in decision making, whereas Individualised leadership is primarily focused on a top-down leadership model where a singular individual makes decisions for others. It is with this in mind, that corruption is more likely to form within the latter as the researchers conducted three studies comparing the two leadership concepts in terms of perception, priming from experience, and in action. With a total of four hundred and twenty-nine Chinese participants they found that with each experiment, their hypothesis was met with significant results, suggesting that Socialised leadership was regarded higher to the Personalised leader, as well as being more likely to follow through on selfless deeds (Fang & Xunwei, 2016). This is important as it strengthens the idea that absolute power and leadership without any mechanisms to hold individuals to account can result in self-serving behaviours taking root, (Pinto, 2024). However, an argument can be made that Socialised leadership may promote benevolent qualities in leadership within collectivist cultures, such as those in Asia.

Therefore, a cultural difference must be distinguished from the above study, as Fang and Xunwei's (2016) study takes place in China, whilst the present study was executed within the UK, which is considered to belong to an individualised culture (Li et al., 2022; Van der Toorn & Jost, 2014). In addition to this a literature review by Eva et al. (2019), focused on servant leadership and from the 285 articles from the past 20 years, they concluded that individuals

who focused on the development of their followers in a socially supportive manner, were more likely to experience reciprocal treatment from their followers compared to individual-focused leaders. From the numerous research into this field, it is within our assumption that this data is accurate, and as such, quality of leadership is a primary factor we must consider in research.

Miklian and Katsos (2024) further support the notion of socio differences and leadership quality via the use of examples of individuals overcoming poly-crises in organisational settings. They argue that solving multiple crises at once, may portray a leader's true character and that ethical behaviour can be beneficial for all. However, this source does not implement any statistical results, nor do the select vignettes provide generalisability towards the greater public, thus making the researcher's publication unreliable on its own. However, when combined with Fang and Xunwei's (2016) leadership study, and Eva et al.'s (2019) study on the psychology of follower leadership, a strong case can be made in favour of the researchers' theories (Miklian and Katsos, 2024).

When it comes to leadership as a topic, there is much debate on what factors lead an individual to deviate from authentic leadership and instead choose to pursue projects of self interest (Butterworth et al., 2024; Eva et al., 2019; London, 2023; Mulgan, 2007). For instance, Maner et al.'s (2012) study on power and anxiety concluded with the interpretation that within individuals in powerful positions, those low in anxiety are more likely to interpret sexual attention from confederates and were more likely to engage in risky behaviours, compared to those who scored higher in anxiety. Therefore, it can be implied that one's level of anxiety may impact how an individual views their power. What is important to consider, is that while risky behaviour is not clarified into specific action, it is possible that a growing confidence could lead to individuals pursuing self serving behaviours outside of public acceptability (Williams, 2014). However, these results should be questioned as the sole

demographic within the participant pool consisted of 66 undergraduate students, and thus, may not be generalisable to the wider public (Maner et al., 2012).

Kakkar et al. (2020), suggest that often, individuals with high levels of social power are treated differently in the cases where they deviate from a social norm or law. Their primary findings result in them concluding that there are two types of social power, with individuals either falling into authority or prestige. These two paradigms can be defined as the physical power to shape and influence national institutions such as lawmaking bodies and policing (authority), whereas the prestigious is a public role which while possessing the power to influence domestic perception, lacks the authority to calibrate fundamental national policy. For instance, a simple example within the current world are Government officials, and celebrities. Those who are identified as holding an authoritative power are more likely to be held more accountable than prestigious individuals.

On the topic of leadership, Butterworth et al., (2024) offers two definitions; one being that authentic leadership consists of motivating followers to take action via promotions of sincerity and morality. The second presents the notion that moral judgements from a follower may influence the perceived legitimacy of a leader. Moreover, the researcher suggests that the use of Authentic leadership and heightened Emotional intelligence together, improves overall job satisfaction and productivity. However, due to the recency of the study, and a lack of replication, such a conclusion must be considered with caution.

When it comes to Authentic leadership as a concept, it appears that there is much discourse and little agreement. For instance, Pioli et al. (2020), argue that there are a mass number of quantitative studies which investigate the premise of Authentic leadership, however a means to measure authentic leadership could not be sustained. However there is potential that identifying authentic leaders still remains possible. In addition, Vugt and Ronay (2014),

found three major barriers that negatively affect productive leadership, the most notable being an innate tendency to take advantage and dominate our peers, as referenced by the Evolutionary leadership theory. They argue that we as a species are naturally wired to seek domination via controlling information, bribery, or even criminally violent means, as it is a path of less resistance. However, the researchers have only presented an incomplete theory that momentarily presents the primary themes of their hypotheses, thus making the validity of the Evolutionary theory difficult to subscribe to.

Karr (2022) concludes that good leadership requires a union between leader and follower emotional factors in order to accomplish a shared goal. The author recommends a velocity model, which requires a vivid idea of what outcome a leader expects by communicating with their employees as soon as possible with a focus on the direction they would like to take. This is important as it suggests that strong leadership stems from transparent communication. However, a limitation can be found in the fact that there is little scientific data to reinforce these claims, therefore scrutiny is required when considering this method. In conjunction with this, London (2023), suggests that adaptive leadership promotes efficient problem-solving skills and handling stress in a productive manner, especially during crises. They claim this may be harmful to the workforce if the leader is more conservative and relies on previous methods of responding to threats to the organisation. They build on Karr's (2022) theory of velocity by adding adaptability, agility, and resilience to the factors of speed and direction, thus providing some validity to the original model. In turn they propose their own model that focuses on the leader's intelligence and capacity, along with the organisation's capacity to accommodate, as a means to explain one's abilities to effectively respond to crisis. However, it must be noted, that both sources are limited for their lack of scientific study and assurance of validity within the discipline of political psychology.

With this research in mind, it is apparent that the majority of research focuses on how leaders should behave towards their followers within organisational environments. However few studies look into the conduct of governmental leadership despite its diverse and pivotal purpose within a nation. While some studies such as Barreto and Medina-Arboleda (2021), and Maskor (2021) observe presidential candidates during public addresses, the only results they conclude are that they often promote a sense of national unity and are more successful in securing a seat via dismissing their rivals' abilities. While informative in the manner that it suggests that politics is increasing in polarisation, neither study suggests why a leader may turn to corrupt and selfish means of governing as we have seen in the past decade. Fang and Xunwei (2016) claims that there are two types of leadership styles, and that it is a nation's culture (Individualistic and Collectivist), which determines which style a leader will adopt between Individualised and Socialised leadership. With this in mind, they conclude that within nations that portray leadership as a social responsibility, leaders are less likely to turn to selfish modes of government. However, history and current events such as allegations made towards China's treatment of the Uyghur people in the Xinjiang (BBC, 2022) or the Japanese government experiencing a corruption scandal (Mao, 2023), suggest that perhaps a nation's culture is not as pivotal a factor as previously assumed.

In terms of studying what motivates people to commit to their actions, it is important that academic investigation strives to mimic the host participation pool's natural environment in order to secure a high ecological value. While locale is shown to be important (Gifford, 2014), it is likely that social and economic factors are equally as important in influencing decision making. In today's current setting, finance and independence are instrumental in informing one's actions, and therefore, when conducting a study involved in interpersonal interaction, a means of structure within said study must be utilised. The use of Game theory in order to implement a token economy as a means of introducing a level of independence,

whilst eliciting similar needs for resource management (Hardy, 2013) can therefore be considered as a potential viable methodology. The primary reason for this is that through the use of a token economy, participants will be more inclined to follow behaviours which maintains and supports their resources, along with avoiding a loss of wealth, similarly to real life (Karzdin, 1977; Pan et al., 2021; Doll et al., 2013). Therefore, when investigating reasons for why government leaders and officials deviate from their roles in office, Game theory can prove to be a pivotal instrument to observe human behaviour in a high ecological setting.

With this evidence in mind, the present study aimed to investigate whether a governmental system affects the quality of leadership within two groups, as well as determine whether the differing systems have an effect on perceived authentic leadership via Walumbwa et al.'s (2008) Authentic Leadership Questionnaire. It was hypothesised that leaders within a democratic system would be more cooperative and authentic compared to an autocratic leader. Secondly, it was hypothesised that followers within the autocratic group would perceive their leader as less authentic due to them not being required to meet public expectations compared to the democratic leaders. Also, due to limited research investigating leadership within government and society we hypothesise that the autocratic group will be less efficient at managing a token economy.

## **Methodology**

### **Participants**

The participants recruited for this study consisted of a total of 18 undergraduate students studying psychology and psychology and counselling courses in the University of Wales Trinity Saint David. The mean age of the participant pool resulted in 32 with a standard

deviation of 12.8 and a range of 18 to 57. These participants were separated with a gender divide of 67% of women and 33% of men.

Once recruited these participants were split into different groups at a maximum of five. These groups would belong to one of two government systems codenamed Autocratic and Democratic. In which the procedure between how a leader was chosen changed depending on the group, with Autocratic leaders being chosen at random and remaining throughout whilst Democratic leaders were voted by their cohort and were required to be re-elected at particular intervals throughout the study.

## **Design**

The present study was a between-subjects design. The independent variable (IV) was group leader type (Autocratic; Democratic) with participants assigned to one of the two IV conditions. There were two dependent variables (DVs): 1) time taken by group leaders to consider taxation tasks, measured in seconds to address the first hypothesis, and 2) participant ratings of the group leader on the Authentic Leadership Questionnaire (Walumbwa et al., 2008), measured using scale data to address the second hypothesis.

Whilst the initial intention was to analyse data using between-subjects t-tests, the low number of participants and reduced power of the data made the use of a parametric test inappropriate. Therefore, Mann Whitney U tests were used to analyse the data.

## **Materials**

The primary resource used in this study is Walumbwa et al.'s (2008) Authentic Leadership Questionnaire. This is a 16-Item questionnaire rated on a scale of *Not at all* (0), *Once in a while* (1), *Sometimes* (2), *Fairly often* (3), and *Frequently if not always* (4).

Items consist of statements regarding to a leader's performance, such as *My leader says exactly what he or she means*, *Admits mistakes when they are made*, and, *Tells you the hard truth*. During these questions, they focus on four essential dimensions with those being; Self-awareness, relational transparency, internalised moral perspective, and balanced processing. Reverse scoring is not required and instead results are concluded via simple addition of individual responses. This results in participant rating of group leaders ranging between zero and 64, with a higher score equating to a more positive rating of their leadership. Reliability tests of the ALQ (Walumbwa et al., 2008) received a .90 via Cronbach's Alpha, thus making it a viable method for data collection.

During the study, four vignettes designed by ChatGPT were presented to the participants. These consisted as follows; 1. *Agricultural Surplus: The nations farmland has produced an increased number of foodstuffs than originally approximated. How would you like to distribute these assets?* 2. *Trade Embargo: Due to a slew of international scandals, our neighbours have enacted a trade embargo on us. How should we respond?* The full list along with their options can be found in Appendix F. below.

In addition to this, a token economy was also constructed with three primary colour-coded tokens being distributed to each participant. These were 10 Finance tokens (green), five Supplies tokens (blue), and one Asset token (orange). These represented the participants' money, utilities such as food, and non-taxable wealth, equally. Moreover, these tokens had different exchange rates, with one Finance token equating two Supplies tokens and 0.1 Asset token.

## Procedure

Before the study was conducted in full, we deemed it necessary to conduct a pilot study in order to test the original vignettes and utility of the token economy. For this pilot, two

participants were recruited via voluntary application through word of mouth in the university. During this time, a couple weaknesses were identified involving the protocol and token economy. After completing the pilot, remedies were made for the study to begin in full. Most notably, Utility tokens were replaced by Asset tokens which could not be confiscated by taxation, thus providing an incentive for the participants to engage in the token economy.

By the end of the experiment, we had recruited a total of 18 participants via the Experiment Management System. In which the participants were separated into two overall groups. However due to a mixed availability, these groups consisted of a mixed number of personnel, with a maximum of five per group.

As per BPS guidelines, each participant was given enough information to provide informed consent via an instruction sheet which consisted of mapping out their duties, along with the full procedure of the experiment and expected time limit. Due to the experiment having taken place within the University of Trinity Saint David, we were required to receive permission from a supervisor within the psychological discipline before beginning data collection. Due to this, we can guarantee that parental consent was unnecessary as to the students taking part in undergraduate courses were eighteen and above. At the end of the study, each participant was debriefed via a physical information form along with a verbal explanation of the purpose of the study. In conjunction with BPS good practice, all participants were granted an opportunity to withdraw their data from the study.

From there, once the participants had consented, each of them received the correct amount of tokens, before given the opportunity to trade amongst themselves. Afterwards, a leader was chosen, either through secret ballot voting within the democratic group, or

by predetermined selection. To avoid bias, the researcher selected a seat at the table before the participants arrived. Once a leader was chosen (the democratic leader holding a new election each round whilst the autocratic leader remained the same), they were then expected to select a percentage of tax from a sheet up to 60%. This would ensure that any wealth disparities were fairly addressed. Once every participant provided the adequate tokens, a vignette was provided to the leader who was asked to read it aloud or in silence, and were timed upon finishing to measure the length of discussion between the participants. This continued until the final vignette had been addressed, in which each participant was asked to fill out an ALQ for each leader (excluding themselves).

Afterwards, the participants were thanked for their time, and debriefed. All of their data was recorded on SPSS over the span of thirteen weeks, and analysed. The final output can be viewed in the results section below.

## **Results**

Data was entered into SPSS from the 18 participants. Five groups completed the study, two of these with an Autocratic leader (so the leader remained the same throughout the study) and three with Democratic leaders (leadership of the group changed throughout the study).

Therefore, five participants took part in the Autocratic leader condition and 13 participants took part in the Democratic leader condition. Because number of participants differed in each group the ratings of group leaders were averaged across participants to enable comparison of ALQ scores across conditions.

### **Authentic Leadership Questionnaire Rating**

The average rating of leaders on the ALQ was 46 for Autocratic leaders and 34.25 for Democratic leaders, As higher scores on the ALQ equate to greater positivity, it therefore appears that autocratic leaders were rated more positively than democratic leaders, although

analysis using a Mann Whitney U test showed that this finding was not significant; Average ratings of leadership between the two groups returned a Sig. value of 1.0 from Autocrats ( $Md = 46.00$ ,  $N = 2$ ) and Democrats ( $Md = 34.25$ ,  $N = 10$ ).  $U = 10.00$ ,  $z = .00$ ,  $P = 1.0$ ,  $r = 0$ .

Therefore, the hypothesis that Democratic leaders would be rated more positively than Autocratic leaders must be rejected.

### **Scenario Discussion Time**

The average time taken for leaders to make a decision was calculated for each condition, and it was found that Autocratic leaders took an average of 27.38 seconds to make a decision compared to 45.00 seconds for Democratic leaders. Whilst it appears that Autocratic leaders made faster decision, analysis using a Mann Whitney U test showed that this finding was also not significant, For Average Time a Sig value of .58 was discovered between Autocrats ( $Md = 27.38$ ,  $N = 2$ ) and Democratic groups ( $Md = 45.00$ ,  $N = 10$ ).  $U = 6.00$ ,  $z = -.70$ ,  $P = .58$ ,  $r = 0.20$ . Therefore the hypothesis that Autocratic leaders would make faster decisions than Democratic leaders must also be rejected.

### **Summary**

The above results act as the primary conclusions of the present study. However, in the process of data collection, some patterns emerged which, whilst not reaching a threshold for analysis, are commented on below as they provide potential avenues of interest for this type of research and are discussed further in the Discussion section. Barring one of the two Autocratic leaders, the leaders chose option B, an option which positively affected the group more, even at their own expense (See Appendices L). This would thus, suggest that leaders would attempt to put their followers needs above their own. A difference in patterns of taxation across the rounds of decision-making also appeared to exist for specific individuals, particularly within the Democratic group (See Appendix L). Most notably one democratic

leader who was voted into power twice, increased tax rates by ten percent in their second term, thus receiving a higher sum of tokens and increasing their opportunity of accessing more assets (Williams et al., 2014). These individual findings are reported here because it is possible that this area of research may be considered as a variable in future research.

## **Discussion**

The present study was designed to investigate two parts of a broader question regarding governmental leadership. The first was whether the quality of leadership would ultimately change or diminish under one institution over the other. This is to suggest that due to the possibility and subsequent result of different leaders within a democratic group, decisions and attitudes towards the grater group would diverge in comparison to Autocratic groups where a single leader has no risk of replacement. For this part, it was hypothesised that Autocratic leaderships would be less considerate of their subordinates than their democratic counterparts and was measured by the leaders' discussion time involving four vignettes, and while not measured, observations were made in regards to their final choices in the different scenarios, along with the percentage of tax levied within the token economy. The second half of the question sought to inspect whether participants favoured one system over the other. In this part it was pre-conceived that participants would favour democratically elected leaders and would receive higher ratings than hereditary Autocrats. Therefore, the precise use of measurement informing the results of this study was the participants' answers to Walumbwa et al.'s (2008) Authentic Leadership Questionnaire.

Within the present study, there were two primary key findings. The first involved the overall ratings of both the democratic and autocratic leaders who were in charge of addressing the four vignettes of the experiment. Results came back as non-significant. This means that when it came to the leaders' civilians to rate their progress via the

Authentic Leadership Questionnaire (Walumbwa et al., 2008), there was no significant difference reported between those under autocratic and democratic rule. Initially this can be aligned with Reykowski's (2020) thesis, in which they claim that democracy as an institution often falls out of favour by its own citizenry due to a failure to act in accordance to the people's expectations. Their primary citations for this were the Realistic Conflict Theory (Sherif, 1988) as well as societal shifts in the face of epistemic changes, in which a suggestion is made that due to the volatility of governing a nation, along with constant shifts in national priorities between politician and civilian, a leader's popularity could become subject to change. This notion can be supported by Paramita et al.'s (2020) research on psychological distance between Airbnb owners and residents. In this study, a participation pool of a hundred and sixty-three participants, split between four groups (low power – short distance, low power – long distance, high power – short distance, and high power – long distance), they found that participants belonging to the psychologically close (in this circumstance, a perception of closeness and rapport to an individual), and high power category were much more tolerable to unethical behaviour compared to their low power counterparts. Moreover, they mention that within the long psychological distance category, power and the lack of it, did not have an impact on judgement. This is interesting because it suggests that with a lack of power and a long psychological distance, participants may become indifferent to a leader's actions even if they were to be unethical in nature. This could link back to the current study's results in which an autocratic leader who chose self-serving vignettes received a similar authentic leadership score to a democratically elected leader. Fundamentally, this could link to the suggestion that participants possess a level of neutrality towards governmental regime so long as their needs are being met (Hartmann, 2013). Fang and Xunwei (2016) support this notion as they claim that leadership can be separated into two kinds, those being Personalised

and Socialised. They suggest that high levels of personalised concepts of power leads to higher rates of self - pursuing goals and tolerance of corrupt actions, thus linking back to Paramita et al.'s (2020) study and strengthening their conclusion. Although when comparing personalised leadership to its alternative in socialised power, the researchers found that fundamentally, these leaders were perceived warmly by their subordinates and tended to lead with them in mind, so therefore an argument can be made that, while there is a high level of tolerance for authoritarian rule and misbehaviour, individuals may lean more towards group centric leaders. This notion of group focused leadership can be supported by Bastardo and Van Vugt (2019), who makes the claim that individuals who choose to follow a leader do so as a result of a number of issues such as the management of resources, along with the leadership type made available compared to others, thus suggesting that particular leadership styles may play an active role in followership. In addition to this Eva et al., (2019) found that a servant focused leadership style, as described by Fang and Xunwei (2016) was rather popular with individuals and was rated highly by participants, and while servant leadership proves rather new in the grand scope of political psychology, the current information of the leadership style shows potential. This is important as there are possible implications that the participants in this present study had adopted socialised modes of thinking, and were therefore, more likely to rate their leaders highly, along with most of the leaders, including the Autocrats, choosing to put the group first.

When considering the statistics acquired from the presented study it is apparent that no new or supporting evidence can be inferred in conjunction to the presiding theories involved with governmental and organisational leadership. As a result, it is currently impossible to make the claim that democratically elected leaders are inherently more trusted by the public than hereditary Autocrats. A primary explanation for this is due to a limited number within the

participation pool, thus leading to a reduction in both equality of variance, and recorded results. Furthermore, this led to a requirement of a non-parametric test and therefore lacks the desirable power necessary for to acquire strong results. As referenced above in the Results, it is possible that variables outside of the present study's focus may have an impact. For instance, the majority of the leaders' choices in abstaining from selecting the self – serving options within the vignettes potentially links to Fang and Xunwei's (2016) concept of socialised power as it suggests that leaders are inclined to act more benevolent when there is a higher focus on their subordinates. In addition, the discrepancy of taxation rates between the different leaders is notable, especially within the democratic groups (See Appendix L) As to the motivations behind these actions, it is not known nor can it be discerned with the present results. However, it could be possible that given that it was the final round, perhaps these leaders sought to increase their profits, which could align with Reykowski (2020). Or equally a possibility, previously low taxation rates and increasing risks from the presented vignettes, led to these leaders within their final terms wishing to be prepared for future negative outcomes. In addition to this, due to the participants being undergraduate students, and thereby studying together, it is also possible to mention that the likelihood of participants being friends and/or other relational factors may also have played a part in how they interacted with each other and their ratings. This may be especially true for the democratic groups as they were both larger and more susceptible to communication, thus possibly utilising a relational depth (Hartmann, 2023). Ultimately a lack of clarity prevents us from making strong assumptions and as a result, does not support previous findings. Although, it should be stated, that previous research investigating leadership has yet to implement game theory (Hardy, 2013) and token economics (Doll et al., 2013) within research. This is important as both of these systems allows for a more in-depth simulation of government and society as a whole, which would prove beneficial from a psychological lens as it will lead to

more realistic responses from participants and thus, more accurate results. As a result, it is plausible to make the argument that the present study while limited, offers a new paradigm for researching societal conventions and institutions (Richter & Rubenstein, 2021). Should future research explore this topic further with a larger participant pool, then it may hold promise in offering valuable information into the wider public's political psychology and leadership.

When it comes to the second half of the results, it is clear, that like the average rating of the leaders, the overall times for discussion in both groups produced a non-significant result. Therefore, the null hypothesis that there was no difference between the autocrats and democrats is accepted. In terms of explanation, Maner et al. (2012) concludes that power as an item promotes action within those who possess it. This offers the possibility that institution plays a limited part in leadership and that decision making between both groups may be inherently fast paced. This could link back to our low discussion times as it may suggest that the participating leaders were simply exercising their ability to act without restriction. As for an alternative explanation, Maner et al. (2012) makes the case that anxiety levels are a more informing factor into a leader's actions compared to institution type. Mayoral et al. (2024) supports this idea, as they suggest that people are naturally drawn to higher positions with extending reaches of power, and that confidence plays a part in how individuals act, in which overconfident individuals appear to expect higher status. Therefore, a case could be made that government type is made irrelevant in the direction of leadership action in favour of personal ambition.

However, while this is plausible, a number of studies suggests the contrary. For instance, in terms of the notion that leadership promotes action, Pinto (2024) can support this through their discussion, in which they claim that Populist leaders are more active whereas democratic leaders tend to focus more on forming working and political

relationships, thus outlining a difference between the government institutions. This can be further developed by Bueno de Mesquita and Siverson (2013), as they observe that both democratic and authoritarian leaders engaging in war behave differently, with democratic leaders being more prudent in their choice to engage in international conflicts compared to their authoritarian counterparts. The primary reason for this is suggested to be due to the high risk linked to their political career. This is interesting as it links back to the present study's original theory, that being a risk of replacement and/or being held to account plays an active role in a political leader's actions and behaviour.

Due to limitations on the power of the participation pool, the results collated cannot be used to evidence new or supporting evidence in either direction. With that being said, upon looking at the data, it could be possible that with consistent group sizes, patterns may begin to emerge. For instance, on multiple occasions, for both Autocratic and Democratic groups, leaders chose to abstain from conversing with their groups on the subjects of their vignettes and subsequent decisions. In addition to this, while a mild difference can be identified between the average discussion times of the two groups, it is clear that the democratic groups took longer to discuss their options compared to the autocrats. It is possible that this may be due to the communicative nature instilled in Democratic institutions (Pinto, 2024; Mulgan, 2007), or perhaps it is an additional consequence of leadership roles shifting one's thought processes and senses of responsibility (Mayoral et al., 2024; Wu et al., 2021; Maner et al., 2012). Equally as likely to this, is the possibility that there is no difference between the two groups in terms of communication and that with consistently sized groups the gap between discussion times would be even closer, if not closed entirely. No matter the reason it is strongly recommended that further research investigates this topic more in depth in order to

adequately investigate whether the organisation and institution type of government plays as an imperative factor in both decision making and cooperation for leaders.

In terms of limitations, the present study possesses a few. To begin with, due to this being an Undergraduate end of course Empirical Project, participants were solely made up of other Undergraduate students. This limits the overall efficacy of the study as while making up a hundred percent of the participation pool, university students only make up 2.94 million out of 60 million people within the UK's population (Clark, 2024). This only makes up 4.9% of the entire population, and thus, do not represent the wider public. Therefore, any significant results are likely to fail to associate with wider populations, thus further research focusing on incorporating other groups of the population would be pivotal in ensuring that results are proportional to the greater society as alternative viewpoints in regards to leadership and government can be ascertained. A second limitation the study suffers from is a low participation power. As a result of a time constraints and a small psychology department within the university, limited participants and unbalanced groups are likely to have skewed the study's results. This can be confounded by the additional issue of the requirement of the use of a non-parametric test for analysis thus, making statistics unreliable for analysis and inference, and therefore, additional participation will be pivotal in acquiring accurate results.

In addition, a third limitation worth mentioning is two – fold. The first half is that the present study was a lab-based experiment, which while a valid mode of scientific study due to its element of control over the experiment's variables, it does also mean that it takes place in an unnatural environment, and therefore, it is plausible that the behaviour of the participants may have been different during the experiment compared to had it have been conducted in a natural environment. Adding onto the low ecological value, the second factor effecting the validity of the study is due to the small cohort of the psychology discipline, most of the participants involved knew each other beforehand. Therefore, there is a possibility that a

participatory bias may have played as an influencing factor in the Authentic Leadership Questionnaire (Walumbwa et al., 2008) results.

Should this study be repeated in the future, it will be imperative that succeeding participation groups are equal in size and a greater pool recruited. This will ensure that results will return a stronger power and thus, accurate statistics. In addition, it may be beneficial to extend the experiment session from fifty minutes, to an hour and a half, to two hours, in order to implement a campaign round for the democratic participants to attempt to debate with each other and offer alternative methods of governing (Barreto & Medina-Arboleda, 2021; Maskor et al., 2021). In addition, this will allow for equal and robust token economies as each participant will be able to possess the same amount of tokens, and therefore allow for more liquidity and competition between participants during trading and taxation phases (Sadykhov et al., 2023).

Once mastery of the current study has been achieved and the initial results from it are decidedly accurate, the possibility of further experimentation and in-depth discussion can prove bountiful. For instance, with this particular study we only utilised Walumbwa et al.'s (2008) Authentic Leadership Questionnaire instead of a leadership questionnaire which considers emotional intelligence such as Levesque-Cote et al.'s (2018) Authentic Leadership Integrated Questionnaire. The reason for this, is because the primary focus of the present study was to investigate how different leaders would respond to particular crises as well as how the participants perceived them on a general scale whilst simulating a society via a game theory (Richter & Rubenstein, 2021). With that being said, it is possible that perceptions of emotional intelligence may shift the perceived worthiness of a leader, and it would be interesting to see if there would be a difference in these perceptions between democratically elected leaders and Autocrats. Furthermore, additional research focusing on the token economic element of the study can prove fruitful in further research as unlike our current

society, this experiment provided an equal distribution of tokens to the participants. In reality, we understand that not every individual possesses the same number of resources or opportunities, and thus, it would be intriguing if future research were to implement a social strata and observe whether participants retrieving less tokens will judge their leaders differently to those with more (Sunyaev et al., 2021). As a final recommendation, additionally exploration of this topic could endeavour to expand on the implementation of Game theory utilised within this experiment. It could be interesting if the simulation of real life could implement a more in - depth system of roles within this study. For instance, while the present research only implemented the role of citizen and ruler, it could be possible that other opportunities for power could be introduced such as a Chancellor of the Exchequer role to oversee financial tokens, or even domestic positions such as farmers who may be responsible of accumulating supplies tokens. Initial research with this new role – model can investigate how different individuals along the chain of command respond differently to particular issues or actions (Richter & Rubenstein, 2021). Furthermore, this can then possibly stem out by examining whether extrinsic factors and necessary preferential treatment in response to particular vignettes may play a role in negative opinion and bias towards one's leader. Other possible research questions could seek to investigate whether Age, gender or ethnic background plays a role in action as a leader, or attitude within the citizenry.

Given the current scenario within the world (Mao, 2023; Buchschluter, 2022; BBC, 2022), the psychology of leadership and government is more important than ever. Yet literature on the topic has proven to be widely theoretical and dated. As a result, the present study sought to raise awareness of the merit of Game theory (Hardy, 2013) and tokenomics (Sadykhov et al. 2023) in the creation of a group simulation of a governing nation, as a means of collating strong data on the psychology of government within the human species. While the present study is statistically weak to make any strong inferences itself, it is our hope that a strong

case has been made to the academic field in favour of pursuing this line research as it remains to be an untapped source of knowledge for the psychological discipline. A plethora of avenues are available to be taken for further study within the UK alone, as well as the potential for international/intercultural elements to further inform psychological study (Pan et al., 2021). Our initial recommendations are to repeat the present study with a larger participant pool of individuals representative of the wider public and unfamiliar with each other in longer experiments to allow for in-depth campaigning within the democratic groups. It is our belief that further study within this sub-category of political psychology, empirical evidence may result in informed judgements and understanding on how different governments and their leaders behave and act while in power.

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PERFECTIO CHIRURGI  
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Trinity Saint David

Assessment Component 1: Research proposal (1,000 words) worth 10% of the overall module mark for the Psychology Empirical Project. The proposal form will be marked in line with the Level Six Grading Rubric. The boxes below will expand as you type.

Psychology Research Area (tick all that apply)Proposed Study Design (tick all that apply)

**Suggested Research Title Area:** (between 10-15 words and must reflect the essence of your proposed research question, study design and study population and should be more specific than a broad topic area).

**Background:** 250 words  
Why is your study important? What theory and empirical research evidence supports your research question? (Please provide a rationale for your study including a brief review of relevant psychological literature)

The presenting story is crucial to political psychology as it is linked to the current world. A number of liberal policies purposed with retracting personal freedoms have been introduced. From Russia's war on Ukraine (2022) to The UK Conservative party's promise to introduce a new Bill of Rights (2022), the world has seen a trend of curtailing civil liberties that is irrelevant. Instead, it is the fact that each example has acted against their own citizen's freedoms to serve themselves. Such a notion is claimed to be the natural process of leadership and the only way to ensure the survival of the state. The author argues that the notion of democracy as an institution is inherently corrupt as politicians strive to secure fame and power for themselves. The author also argues that the current political system is corrupt. President Putin has crumpled his country's constitution to run for presidency indefinitely with many critics being silenced through authoritarian means (Ozcan & Szecsenyi, 2024). Therefore, it is important to understand the nature of leadership and how it is used to claim that politics has become more cut-throat, with most individuals garnering a larger following via discrediting their rivals. Mayoral et al. (2004) further supports this notion that leadership is a process of power and influence. The author argues that leadership is a power through domination instead of civil discourse. It is with these points in mind, that the experiment aims to explore whether continuous leadership without risk of replacement leads to

References  
BBC News. (2024, May 17). *Ukraine in maps: Tracking the war with Russia*.  
<https://www.bbc.co.uk/news/world-europe-60506682>

Gozali, I., & Scary, F. (2024, March 17). *Russian election: Why Putin's fifth term as president was never in doubt*. <https://www.bbc.co.uk/news/world-europe-68505228>

Karr, R. (2022). *The psychology of leadership. Leader to Leader*, 2022(103), 63–67 <https://web-p-elsevierhost.com/exproxy.united.ac.uk/ehost/pdfviewer/pdfviewer?vid=0&sid=7a23eac-1d25-4ae8-8905-001125085803%40redis>

Masker, M., Steffens, N.K., & Haslam, S.A. (2021). The psychology of leadership destabilisation: An analysis of the 2016 U.S. presidential debate. *Political Psychology*, 42(2), 265–289. doi: 10.1111/pops.12698

Bersikowski, P. (2020). *Disenchantment with democracy: A psychological perspective*. (5<sup>th</sup> ed.). Oxford University Press.

Seddon, S. (2024, May 26). What is the Tory national service scheme and how might it work?  
<https://www.bbc.co.uk/news/articles/c988jdt027vo>

Mavroul, S., Ronay, R., & Oostrom, J.K. (2024). Overconfidence and the pursuit of high-status positions: A test of two behavioural strategies. *Journal of Business and Psychology*

<https://doi.org/10.1016/j.lesqua.2018.07.004>

Please state the main research question(s) or hypothesis(es). (100 words max)

Hypothesis: Leaders within an Autocratic group will become more corrupt and authoritarian due to a lack of replacement threatening their power.

 **Methodological Details** (500 words)

Please summarise the key methodological approach: (you can include copies of proposed study materials as appendices if you wish). You must include details of the following:

- **Participants:** Who will our participants be, how will you access and recruit them, and how many are needed?
- **Design:** Using appropriate terminology clearly define key elements of your design (IVs, DVs, Qual approach, exp't manipulations etc). How do you plan to analyse your main data?
- **Materials:** What are the main measures, scales, experimental tools or other materials required for your study?
- **Procedure:** How will you carry out the study – define briefly what will happen to a participant in your study from the point of consent to the study's design.

## Participants

Undergraduate students by the age of eighteen or over, studying psychology or a psychology related course within UWTSD. They will be recruited via the Experimental Management System (EMS) for credits. The study will aim to recruit around 100 participants to maximise the accuracy of the results from this study.

## Design

The study is a quantitative experiment design. A majority of this experiment will relate to Tokes economic theory and Game theory. The first independent variable is the separation of the participant pool into two groups labelled Autocratic and Democratic (Between-subjects). The second independent variable is Time in power, with Autocratic leaders remain unchanged compared to the Democratic group (Between-subjects). The dependent variable are vignettes presented to both groups (Between-subjects), which will provide two responses that represent selfishness/selfishness. The second dependent variable will be a short questionnaire for the participants to rate their leader's conduct (Between-subjects).

Number of selfless/selfish responses, along with data from the questionnaire of satisfaction from both groups will be compiled into mean totals. Two Independent t-tests will be conducted. One ~~in order to~~ compare the results of the varying leaders of the two groups, whilst the second will compare the average satisfaction of the participants.

### Materials:

A token economy made of three items (Finance, Utility, and Supplies) will be established for the participants to manage in order to simulate a more realistic environment. Moreover, a list of four vignettes will be produced by ChatGPT, in order to provide the leadership of the two groups with dilemmas to solve. Beneath each prompt, two resolutions will be provided as representations of Selflessness and Selfishness, by either effecting the current leader or the greater group. Lastly, The Authentic Leadership Questionnaire (Piolli, 2020) shall be used.

### Procedure

The participants are separated into groups of eight and are assigned to one governmental institution (Democratic/Autocratic). Once assigned, a leader will be appointed either via a five-minute group vote, or at random. From there, the token economy is distributed. Each participant will receive the same number of tokens.

After, the current leader will collect a percentage of tax from the rest of the group. A list of percentages, along with how many tokens it would amass will be available for viewing. At any point, the participant's may choose to trade their tokens amongst each other.

The first vignette is presented to the leader along with a choice. Compensation from the greater group or the leader alone. From there the leader will be allowed to take ten minutes to discuss with the rest of the group before deciding, in which, the required tokens shall be removed. In the case a selection of participants seeks to refuse to pay their leader's demands, then a Strike mechanism may be implemented which also affects the group's economy. Afterwards, a new leader will be voted by the Democratic group and the token resources are replenished (The Autocratic leader remains). This is repeated until the final vignette is addressed. Afterwards the group completes a questionnaire of satisfaction of leadership before debriefing.

**Key Ethical considerations (150 words)**

*In this section you are required to briefly outline any specific ethical considerations for your project. All projects will be expected to adhere to the BPS code of human research ethics, and you will need to submit a full ethics form which will document your specific processes for informed consent, debriefing, and data protection. Here you need to briefly note additional or specific key ethical considerations for your particular project e.g. potential for distress or discomfort, any deception, research with vulnerable populations or sensitive topic areas, and briefly outline how you expect to manage these risks within your project.*

One issue to consider is that with the simulation of society and the need to campaign for leadership, some participants may grow upset or aggravated by another's actions. To circumvent this, the researcher will act as a mediator and request to keep all discussions amicable. Further intervention may take the form of a request for agitators to leave in extreme circumstances. Moreover, another consideration is the possibility of the participants growing frustrated by their economy falling into a deficit. To combat this, all participants will be reassured that the experiment has no real-world consequence and will be bid to remain amicable. Deception will not be an issue as the participants will be informed of the other groups' participation. Upon completing the experiment, all participants will be debriefed and informed of the purpose of the investigation, along with being given the opportunity to ask further questions and the right to withdraw.

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**APPLICATION FOR ETHICAL APPROVAL**

**RESEARCH STUDENTS**  
This form is to be completed by the student within SIX months for full-time students and TWELVE months for part-time students, after the commencement of the research degree or following progression to Part Two of your course.  
Once complete, submit this form via the [MyUWDS Doctoral College Portal](https://myuwds.wales.ac.uk) or (<https://myuwds.wales.ac.uk>)  
This document is also available in Welsh.

**RESEARCH STAFF ONLY**  
All communications relating to this application during its processing must be in writing and emailed to [lpresearch@uwds.ac.uk](mailto:lpresearch@uwds.ac.uk) with the title 'Ethical Approval' followed by your name.  
STUDENTS ON UNDERGRADUATE OR TAUGHT MASTERS PROGRAMMES should submit this form (and receive the outcome via systems explained to you by the supervisor/module leader.

In order for research to result in benefit and minimise risk of harm, it must be conducted ethically. A researcher may not be covered by the University's insurance of ethical approval has not been obtained prior to commencement.

The University follows the OECD Frascati manual definition of research activity, 'creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society, and the use of this stock of knowledge to devise new applications'. As such this covers activities undertaken by members of staff, postgraduate research students, and both taught postgraduate and undergraduate students working on dissertations/projects.

The individual undertaking the research activity is known as the 'principal researcher'.

Ethical approval is not required for routine audits, performance reviews, quality assurance studies, testing within normal educational requirements, and literary or artistic creation.

Please read the notes for guidance before completing ALL sections of the form.

This form must be completed and approved prior to undertaking any research activity. Please see Checklist for details of process for different categories of application.

**SECTION A: About You (Principal Researcher)**

|   |                                      |                                      |                               |
|---|--------------------------------------|--------------------------------------|-------------------------------|
| 1 | Full Name                            |                                      |                               |
| 2 | Tick all boxes that apply            | Member of staff                      | Honorary research fellow      |
|   | Undergraduate Student                | Taught Postgraduate Student          | Postgraduate Research Student |
| 3 | Institute/Academic Department/Centre | Yr Abodys Psychology and Counselling |                               |
| 4 | Campus                               | Q1, SA1 Campus, Swansea              |                               |
| 5 | E-mail address                       | 22007@student.uwds.ac.uk             |                               |
| 6 | Contact Telephone Number             | 07413037200                          |                               |
| 7 | Student Number                       | 220079                               |                               |

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**Programme of Study** BSc Psychology and Counseling  
**Director of Studies/Supervisor** Paul Hutchings

**SECTION B: Approval for Research Activity**

|   |                                                                    |                            |            |
|---|--------------------------------------------------------------------|----------------------------|------------|
| 1 | Has the research activity received approval in principle?          | YES                        | NO         |
| 2 | If yes, please indicate source of approval (and date where known): | Research Degrees Committee | 18/07/2024 |

**SECTION C: Internal and External Ethical Guidance Materials**

Please list the core ethical guidance documents that have been referred to during the completion of this form (including any discipline-specific codes of research ethics, location-specific codes of research ethics, and also any specific ethical guidance relating to the proposed methodology). Please tick to confirm that your research proposal adheres to these codes and guidelines. You may add rows to this table if needed.

|   |                                                   |  |
|---|---------------------------------------------------|--|
| 1 | UWDS Research Ethics & Integrity Code of Practice |  |
| 2 | UWDS Research Data Management Policy              |  |
| 3 | BPS Code of Ethics and Conduct (2021)             |  |
| 4 | BPS Code of Human Research Ethics (2021)          |  |
| 5 | BPS Data Protection Regulation (2018)             |  |

**SECTION D: External Collaborative Research Activity**

If there are external collaborators then you should gain consent from the contact persons to share their personal data with the university. If there are no external collaborators then leave this section blank and continue to section E.

|   |                                                                                     |                                                                      |
|---|-------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| 1 | Institution                                                                         |                                                                      |
| 2 | Contact person name                                                                 |                                                                      |
| 3 | Contact person e-mail address                                                       |                                                                      |
| 4 | Is your research externally funded?                                                 | YES NO                                                               |
| 5 | Are you in receipt of a HES scholarship?                                            | YES NO                                                               |
| 6 | Are you specifically employed by:                                                   | Voluntary YES NO                                                     |
| 7 | Under this research is either a paid or voluntary placement?                        | Employed YES NO                                                      |
| 8 | Is the research being undertaken before receiving UWDS ethical approval?            | YES then the permission question below does not need to be answered. |
| 9 | Has permission to undertake the research been provided by the partner organisation? | YES (YES attach copy) NO                                             |

Where research activity is carried out in collaboration with an external organisation

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**Does this organisation have its own ethics approval system?** YES NO

If yes, please attach a copy of any final approval (or interim approval) from the organisation (this may be a copy of an email if appropriate).

**SECTION E: Details of Research Activity**

Indicative title: Examining whether indefinite power results in a corruption of one's governing

Proposed start date: 20<sup>th</sup> October 2024 Proposed end date: 10<sup>th</sup> May 2025

Introduction to the Research (maximum 300 words per section)  
Ensure that you write for a Non-Specialist Audience when outlining your response to the points below:

- Purpose of Research Activity
- Proposed Research Question
- Aims of Research Activity
- Objectives of Research Activity

Demonstrate, briefly, how Existing Research has informed the proposed activity and explain:

- What the research activity will add to the body of knowledge
- How it addresses an area of importance.

**Purpose of Research Activity**  
The proposed study for a Level Six Dissertation, involves investigating whether risk of replacement acts as a strong deterrent from selfish and unequal behaviour in a government-style leadership setting. This power and leadership have received much investigation, life has focused on the nuanced and complicated nature of government leadership. For instance, Majumdar et al.'s (2021) observation of presidential candidates strategies during debates found that the most successful candidates were those who adopted an aggressive strategy and attacked the opposition's ability to lead. This is a notion that Hassan et al. (2015) support and they claim that strong leadership is one that promotes a sense of justice and alienates those who may deviate from the greater good. However, how may it impact the leader and their people, and their modes of governing? Sedgewick (2022), makes the claim that democracy as a form of governance underpins and that as a society we grow disenchanted due to a lack of social cohesion. Parmita et al. (2020) concludes from their study that we are more likely to tolerate deplorable behaviour from one that is more powerful if we are at a close distance to them. Galoppe (2020), investigation found that only 20-30% of the general population have a strong cohesion of their political beliefs, arguing that a lack of political understanding and high levels of social communication via television, social media, and social media, alongside increased negative leadership has caused issue. For instance, in President Vladimir Putin was able to document his nation's constitution in order to be a fifth term. (Dozz & Scan, 2024)

The proposed study will therefore attempt to carry out an original investigation into the potential factors which influence government leadership capabilities and perceptions of those abilities.

**Reference List**

- Galoppe, L., & Scan, F. (2024, March 17). Russian election: Why Putin's 15th term as president was never in doubt. <https://www.bbc.com/news/world-europe-69505628>
- Hassan, S.A., Reicher, S.D., & Bolger, M.J. (2015). The new psychology of leadership: Influence, and power. <https://doi.org/10.1037/a0039709>
- Kaloppe, N.E. (2020). Uses and abuses of ideology in political psychology. <https://doi.org/10.1111/pspp.12560>
- Majumdar, M., Steffen, N.K., & Hassan, S.A. (2021). The psychology of leadership: A review of the 2010 U.S. presidential debate. <https://doi.org/10.1111/pspp.12560>

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**Research Question**

Does threat of replacement in leadership act as a strong factor in abstaining from unpopular decisions?

Does leadership type link to higher accumulation of resources?

Do participants possess a positive bias towards democratically elected leaders?

**Aims of Research Activity**

The aims of this study is to investigate whether a risk of replacement will encourage leaders in a government setting to cooperate with their peers and lead in an efficient and authentic manner. This will be done via a comparison of groups that govern in separate ways (democracy and autocracy). With most research overlooking leadership in government, it is important that an introduction to the decision is made with the hope that further research may build up the study of leadership beyond organisation.

**Objectives of Research Activity**

The objective of this study is to investigate whether a risk of replacement will encourage leaders in a government setting to cooperate with their peers and lead in an efficient and authentic manner. This will be done via a comparison of groups that govern in separate ways (democracy and autocracy). With most research overlooking leadership in government, it is important that an introduction to the decision is made with the hope that further research may build up the study of leadership beyond organisation.

**Proposed methods (maximum 600 words)**

Provide a brief summary of all the methods that may be used in the research activity, making it clear what specific techniques may be used. If methods other than those listed in this section are deemed appropriate (new, additional ethical approval for those methods will be needed). You do not need to justify the methods here, but should instead describe how you intend to collect the data necessary for you to complete your project.

The study will take place in the psychology labs within the SA1 campus in Swansea. Undergraduate students aged eighteen or over, studying psychology or a psychology related course within UWDS will be recruited via the UWDS psychology department's Experimental Management System (EMS) for credits. They will be provided with information on EMS about the study being an interactive study being approximately 90 minutes examining people's engagement with government decision-making and leadership. Those who agree to participate will be requested to attend the waiting area for the researcher to welcome them and lead them into the lab. In the lab they will be provided with an information sheet (depending on which group they are allocated to (see Appendix 1 and Appendix 2), which will outline information such as the expected length, the different phases, and contact details of the researcher and supervisor. Afterwards, all participants will be asked to sign a consent form to communicate whether they are happy to continue with the study.

The participants will be separated into one of two groups (Democratic or Autocratic). Once assigned, each participant will be asked to fill a demographics questionnaire (see Appendix 6) regarding their age and gender. Once completed the experiment will begin in earnest with a leader being appointed either via a five-minute group vote (Democratic), or through random allocation (Autocratic). A token economy will be

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**Research activity outside of the UK**

Research activity will take place in the Psychology labs within the Swansea SA1 campus. This box should expand as you type.

**Research activity outside of the UK**

Research activity will take place overseas, you are responsible for ensuring that local ethical considerations are complied with and that the relevant permissions are sought. Specify any local guidelines (e.g. from local professional associations/learned societies/universities) that exist and whether these have any ethical considerations beyond those in the UK (provide details of any licences or permissions received). Also specify whether there are any specific ethical issues raised by the local context in which the research activity is taking place, for example, religious, cultural, social, or gender sensitivities or vulnerabilities of participants. If you live in the country where you will do the research then please state this.

**Use of documentation not in the public domain: Are any documents NOT publicly available?**

YES NO

If yes, please provide details here of how you will gain access to specific documentation that is not in the public domain and that this is in accordance with the current data protection law of the country in question and that of England and Wales.

**Does your research relate to one or more of the seven aims of the Well-being of Future Generations (Wales) Act 2015?**

YES NO

12 A prosperous Wales

13 A resilient Wales

14 A healthier Wales

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**SECTION F: Scope of Research Activity**

Will the research activity include:

|    |                                                                                                                                               |        |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------|--------|
| 1  | Use of a questionnaire or similar research instrument?                                                                                        | YES NO |
| 2  | Use of interviews?                                                                                                                            | YES NO |
| 3  | Use of focus groups?                                                                                                                          | YES NO |
| 4  | Use of participant diaries?                                                                                                                   | YES NO |
| 5  | Use of video or audio recording?                                                                                                              | YES NO |
| 6  | Use of computer-generated log files?                                                                                                          | YES NO |
| 7  | Participant observation with their knowledge?                                                                                                 | YES NO |
| 8  | Participant observation without their knowledge?                                                                                              | YES NO |
| 9  | Access to personal or confidential information without the participants' specific consent?                                                    | YES NO |
| 10 | Administration of any questions, test stimuli, presentation that may be experienced as physically, mentally or emotionally harmful/offensive? | YES NO |
| 11 | Performance of any acts which may cause embarrassment or affect self-esteem?                                                                  | YES NO |
| 12 | Investigation of participants involved in illegal activities?                                                                                 | YES NO |
| 13 | Use of procedures that involve deception?                                                                                                     | YES NO |
| 14 | Administration of any substances, agent or placebo?                                                                                           | YES NO |
| 15 | Working with live vertebrate animals?                                                                                                         | YES NO |
| 16 | Procedures that you deem to have a negative impact on the environment?                                                                        | YES NO |
| 17 | Other primary data collection methods. Please indicate the type of data collection methods below.                                             | YES NO |

Observation with their knowledge has been selected here as the researcher is required to collect data on decisions made within the study game scenario whilst also not disrupting the flow of the game - therefore, whilst this data that could be collected in another way it is felt that this is the best way to collect the data whilst not disrupting the rest of the study.

**Who are the intended participants?**

YES NO

1 Students or staff at the University?

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**Details of any other participant groups:**

YES NO N/A

**Participant numbers and source**

How many participants are expected?

After conducting a calculation of a sample size, 50-60 participants (based between 10-15 interviews will provide accurate results (25-40 participants per condition).

**Who will the participants be?**

University students by the age of 18 or over, will be recruited from the Psychology and Counselling discipline.

**How will you identify the participants?**

Participants shall be recruited via the Experimental Management System in exchange for credits. Unique codes are given to those who volunteer for the study.

**Information for participants:**

YES NO N/A

13 Will you describe the main research procedures to participants in advance, so that they are informed about what to expect?

14 Will you tell participants that their participation is voluntary?

15 Will you obtain written consent for participation?

16 Will you explain to participants that refusal to participate in the research will not affect their treatment or education (if relevant)?

17 If the research is observational, will you ask participants for their consent to being observed?

18 Will you tell participants that they may withdraw from the research at any time and for any reason?

19 With questionnaires, will you give participants the option of omitting questions they do not want to answer?

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**SECTION H: Anticipated Risks**

Outline any anticipated risks that may adversely affect one of the participants, the researchers and/or the University, and the steps that will be taken to address them.

If you have completed a full risk assessment (for example as required by a laboratory, or external research collaborator) you may append that to this form.

**Full risk assessment completed and appended?**

YES NO

**Risks to participants**

For example: sector-specific health & safety, emotional distress, financial disclosure, physical harm, transfer of personal data, sensitive organisational information

**Risk to participants:**

1 Due to the cooperative nature of the study, there is a risk of some participants feeling frustrated and/or embarrassed in regard to their choice of decision or actions.

2 There is a risk that some participants may feel frustrated due to the mathematical aspect of managing a token economy.

3 Another risk that needs to be considered is that participants may feel uncomfortable with addressing the sensitive topics of the scenarios.

**How you will mitigate the risk to participants:**

1 In line with BPS Code of Human Research Ethics (2021), and UWDS Research Ethics and Integrity Code of Practice, all participants will be briefed before the experiment begins, in which the researcher will request each individual to remain respectful throughout the study, as well as provide reminders where needed.

2 In order to document any additional strain on the participants' responsibilities, all mathematical concerns will be left with the researcher and calculation sheets will be provided.

3 Simple to the first risk, the guidelines of both UWDS Research Ethics and Integrity Code of Practice and BPS Code of Human Research Ethics (2021) will be followed, all steps will be followed.

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**4. There is potential for some participants to feel concerned with how data may be obtained.**

**4. Following the General Data Protection Act (2018), the researcher will explain how the participants' data will be anonymised and stored confidentially, along with how it will be collected. Even further, the participants will be given the opportunity to have their data removed up until the end of the experiment where it will be anonymised.**

**5. If research activity will include sensitive, embarrassing or upsetting topics (e.g. sexual activity, drug use) or issues likely to disclose information requiring further action (e.g. criminal activity), give details of the procedures to deal with these issues, including any support/ advice (e.g. helpline numbers) to be offered to participants. Note that where applicable, consent procedures should make it clear that something potentially or actually illegal is disclosed in the course of a project, it may need to be disclosed to the proper authorities.**

**6. Risks to the investigator:**

For example: personal health & safety, physical harm, emotional distress, risk of accusation of discrimination, conflict of interest

**How you will mitigate the risk to the investigator:**

1 With the provision of the researcher's email, there is a potential for negative emails to be sent from participants.

1 Following the UWDS Student Code of Conduct, all individuals involved will be expected to behave in a professional and respectful manner. Moreover, only the researcher's student email address will be given. In the case that unwanted messages are sent to the researcher, then they will request the misconduct to their supervisor.

2 Whilst unlikely, as the researcher will be in the lab directly with participants for the duration of the study there may be a risk that the researcher's personal wellbeing if a participant becomes unhappy due to frustration or perceptions of unfairness within the game scenario.

2 The study will take place during orthodox university working hours between Monday and Friday. If the study there may be a risk that the researcher will be present. If hostility arises beyond logical capability, the researcher will be terminated, and the researcher is to ensure themselves immediately and report to the manager.

3 Due to the experiment involving leaders addressing critics and other unforeseen circumstances, there is a potential for

3 All guidelines from the BPS Code of Human Research Ethics and UWDS Research Ethics and Integrity Code of Practice will be followed, all steps will be followed.

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1. Discomfort to develop from uncomfortable topics.

2. taken to ensure that all participants are well informed and provide informed consent prior to the conduct of the experiment. In the scenario that a participant changes their mind, then the researcher will remind them of their right to withdraw in a professional manner. All scenarios have been screened to avoid overly-controversial topics.

3. 4. Possibility of being asked for information outside of jurisdiction as an Undergraduate student.

4. In the extent that a participant asks for information beyond their knowledge, then the inquiry will be referred to their supervisor.

(this box should expand as you type)

5. University/Institutional risks  
For example: adverse publicity, financial loss, data protection

Risk to the University:

1. If the researcher and participants fail to adhere to ethical guidelines and behave professionally, then a risk of damaging UWTSO's reputation and integrity is a potential risk that must be taken into account.

2. There is potential for collected data to be leaked and/or used for purposes unintended for the study.

(this box should expand as you type)

Environmental risks  
For example: accidental spillage of pollutants, damage to local ecosystems

Risk to the environment:

1. Due to the expected length of each experiment, participants may ask to bring a

2. In order to prevent spillage, all participants will be asked to only bring water bottles with a secure lid, and the room will be

(this box should expand as you type)

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1. drink, thus adding a risk to the lab environment via spillage.

(this box should expand as you type)

2. cleaned between experiments, in order to keep the environment clean.

(this box should expand as you type)

3. Disclosure and Barring Service  
If the research activity involves children or vulnerable adults, a Disclosure and Barring Service (DBS) certificate must be obtained before any contact with such participants.

4. Does your research require you to hold a current DBS Certificate?

5. If YES, please give the certificate number. If the certificate number is not available, please write "Pending". In this case any ethical approval will be subject to providing the appropriate certificate number.

SECTION I: Feedback, Consent and Confidentiality

1. Feedback  
(What de-briefing and feedback will be provided to participants, how will this be done and when?)

Debriefing and feedback will be conducted at the end of the experiment, in which copies of debrief forms will be provided to the participants, along with a verbal explanation as to what the purpose of the study was. During this time, the researcher will offer the opportunity for participants to ask any further questions and/or request to retract their data from the study.

2. Informed consent  
Describe the arrangements to inform potential participants, before providing consent, of what is involved in participating. Describe the arrangements for participants to provide full consent before data collection begins. If gaining consent in this way is inappropriate, explain how consent will be obtained and recorded in accordance with prevailing data protection legislation.

Before signing up to the study participants will be informed of the nature of the study and the fact that it is an interactive game-style study on EMS. Before beginning the study itself, all participants will be asked to read an information sheet which will explain the full extent of what is to be expected during the experiment (see appendices 1 and 2). After which they will then be asked to sign a consent form (see Appendix 3). Only once both forms have been read and signed where needed, the experiment will begin. As the experiment will be taking place in person, all questions can be answered where they arise. If the participant wishes to withdraw from the study, then they are free to do so at any time before the debriefing, as per the BPS Ethical guidelines (2022).

3. Confidentiality / Anonymity  
(Set out how anonymity of participants and confidentiality will be ensured in any outputs. If anonymity is not being offered, explain why this is the case.)

Upon recruitment, participants shall be identified by their own personal EMS codes. Raw data will be collected under these codes until it is anonymised, and their identifying number will be changed for an impersonal participant ID. Moreover, only the anonymised data will be used for research, in compliance with the UWTSO Data Protection and Storage Protocol.

(this box should expand as you type)

SECTION J: Data Protection and Storage

1. Does the research activity involve personal data (as defined by the General Data Protection Regulation 2016: GDPR, and the Data Protection Act 2018: DPA'18)?

YES NO

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Trinity Saint David

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1. "Personal data" means any information relating to an identified or identifiable natural person ('data subject'). An identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person. Any video or audio recordings of participants is considered to be personal data.

2. This study will require personal data in the form of age and gender for the purpose of recording descriptive statistics in conjunction with orthodox psychological research.

3. Does it involve special category data (as defined by the GDPR)?

YES NO

4. "Special category data" means sensitive personal data consisting of information as to the data subject –

(a) racial or ethnic origin,

(b) political opinions,

(c) religious beliefs or other beliefs of a similar nature,

(d) membership of a trade union (within the meaning of the Trade Union and Labour Relations (Consolidation) Act 1992),

(e) physical or mental health or condition,

(f) sexual life,

(g) genetics,

(h) biometric data (as used for ID purposes).

5. If YES, provide a description of the special category data and explain why this data needs to be collected.

6. (What the study is about, political decision-making it does not collect data or ask of participants any indication of anything relating to their political opinions or beliefs.)

(this box should expand as you type)

7. Will data from the research activity (collected data, drafts of the thesis, or materials for publication) be stored in any of the following ways?

YES NO

8. Manual files (i.e. in paper form)?

9. University computers?

10. Private secondary computers?

11. Home or other personal computers?

12. Laptop computers/ CDs/ Portable disk-drives/ memory sticks?

13. Cloud storage or websites?

14. Other – specify:

15. For all stored data, explain the measures in place to ensure the security of the data collected, data confidentiality, including details of backup procedures, password protection, encryption, decompilation and decompilation.

16. Raw data will be stored both electronically and briefly on paper, in which it will be kept in a lockable container until digitised. These hard copies will then be stored with the lab manager in the UWTSO lab separate from consent forms which will also be stored there. Digital data will be kept on a password encrypted storage file on the researcher's personal laptop, until anonymised via a replacement of identifiable EMS codes with original participant ID numbers.

(this box should expand as you type)

17. Data Protection

18. Will the research activity involve any of the following activities.

YES NO

19. Electronic transfer of data in any form?

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Trinity Saint David

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14. Sharing of data with others at the University outside of the immediate research team?

15. Sharing of data with other organisations?

16. Export of data outside the UK or importing of data from outside the UK?

17. Use of personal addresses, postcodes, faxes, emails or telephone numbers?

18. Publication of data that might allow identification of individuals?

19. Use of data management system?

20. Data archiving?

21. If YES to any question, please provide full details, explaining how this will be conducted in accordance with the GDPR and Data Protection Act (2018) (and any international equivalents, where appropriate).

22. Data gathered will be initially stored via hardcopy until digitised and anonymised for analysis. All digital data will be stored in a password encrypted file until the conclusion of the study.

Final materials will be shared with the academic staff via thesis and presentation.

(this box should expand as you type)

23. List all who will have access to the data generated by the research activity:

Elliott O'Donnell (Researcher)

Paul Hutchings (Dissertation Supervisor)

Possibility that results may be requested by examiners.

(this box should expand as you type)

24. List who will have control of, and act as custodian(s) for, data generated by the research activity:

Elliott O'Donnell (Researcher)

Paul Hutchings (Dissertation Supervisor)

(this box should expand as you type)

25. Give details of data storage arrangements, including security measures in place to protect the data, where data will be stored, how long for, and in what form. Will data be archived – if so how and if not why not.

Under UWTSO Research Data Management Policy, raw data collected will be filled out on a table on a password protected Word document and demographics will be held on hardcopies where they will be held in a lockable drawer until digitised onto the researcher's password protected laptop. Once data is anonymised and analysed on an encrypted SPSS, all data will be held on the researcher's password protected laptop until the final report is submitted to the UWTSO's encrypted Turnitin page, when which all data will be erased.

(this box should expand as you type)

26. Please indicate if your data will be stored in the UWTSO Research Data Repository (see <https://researchdata.uwtsd.ac.uk/>). If so please explain. (Most relevant to academic staff)

At this point, there is no intention for the study's data to be stored on the UWTSO Research Data Repository.

(this box should expand as you type)

27. Confirm that you have read the UWTSO guidance on data management (see <https://www.uwtsd.ac.uk/library/research-data-management/>)

YES

28. Confirm that you are aware that you need to keep all data until after your research has completed or the end of your funding

YES

SECTION K: Declaration

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**Prifysgol Cymru**  
Y Ddwydd Dewi Sant  
University of Wales  
Trinity Saint David

PG2 / E1 FORM

1. The information which I have provided is correct and complete to the best of my knowledge. I have attempted to identify any risks and issues related to the research activity and acknowledge my obligations and the rights of the participants.

2. In submitting this application I hereby confirm that I undertake to ensure that the above named research activity will meet the University's Research Ethics and Integrity Code of Practice which is published on the website: <https://www.uwtsd.ac.uk/research/research-ethics/>

3. Signature of applicant: Elliott O'Donnell Date: 01/11/24

For STUDENT Submissions:

4. Director of Studies/Supervisor: Assoc Prof Paul B. Hutchings Date: 02/11/24

5. Signature: Paul B. Hutchings

For STAFF Submissions:

6. Academic Director/ Assistant Dean:

7. Signature:

Checklist: Please complete the checklist below to ensure that you have completed the form according to the guidelines and attached any required documentation:

8. I have read the guidance notes supplied before completing the form.

9. I have completed ALL RELEVANT sections of the form in full.

10. I confirm that the research activity has received approval in principle

11. I have attached a copy of final/interim approval from external organisation (where appropriate)

12. I have attached a full risk assessment (where appropriate). ONLY TICK IF YOU HAVE ATTACHED A FULL RISK ASSESSMENT

13. I understand that it is my responsibility to ensure that the above named research activity will meet the University's Research Ethics and Integrity Code of Practice.

14. I understand that before commencing data collection all documents aimed at respondents (including information sheets, consent forms, questionnaires, interview schedules etc.) must be confirmed by the DoS/Supervisor, module tutor or Academic Director.

RESEARCH STUDENTS ONLY  
Once complete, submit this form via the MyUWTSO Doctoral College Portal at (<https://myuwsd.uwtsd.ac.uk/>).

RESEARCH STAFF ONLY  
All communications relating to this application during its processing must be in writing and emailed to [pgresearch@uwtsd.ac.uk](mailto:pgresearch@uwtsd.ac.uk), with the title 'Ethical Approval' followed by your name.

STUDENT'S ON UNDERGRADUATE OR TAUGHT MASTER'S PROGRAMMES should submit this form (and receive the outcome) via systems explained to you by the supervisor/module leader.

Appendices List

Appendix 1: Information sheet for democratic group

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## Appendix B. Demographics Form



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**University of Wales**  
Trinity Saint David

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SA1 Campus  
Swansea

**Demographic Form**

1. Please tick the gender that you identify as:

- Male
- Female
- Other
- Prefer not to say

2. Please state your age below (If you would prefer not to say, then please leave blank):

.....

## Appendix C. Autocratic Experiment Sheet



Autocratic Experiment Sheet

| Round 1                                     | Round 2                                     | Round 3                                     | Round 4                                     | Leader?                                                |
|---------------------------------------------|---------------------------------------------|---------------------------------------------|---------------------------------------------|--------------------------------------------------------|
| P1<br>Leader?<br>Tax %:<br>Trades:<br>Time: | P1<br>Leader?<br>Tax %:<br>Trades:<br>Time: | P1<br>Leader?<br>Tax %:<br>Trades:<br>Time: | P1<br>Leader?<br>Tax %:<br>Trades:<br>Time: | Tax %:<br><br>Selfless:<br><br>Selfish:<br><br>Rating: |
| P2<br>Leader?<br>Tax %:<br>Trades:<br>Time: | P2<br>Leader?<br>Tax %:<br>Trades:<br>Time: | P2<br>Leader?<br>Tax %:<br>Trades:<br>Time: | P2<br>Leader?<br>Tax %:<br>Trades:<br>Time: | Tax %:<br><br>Selfless:<br><br>Selfish:<br><br>Rating: |
| P3<br>Leader?<br>Tax %:<br>Trades:<br>Time: | P3<br>Leader?<br>Tax %:<br>Trades:<br>Time: | P3<br>Leader?<br>Tax %:<br>Trades:<br>Time: | P3<br>Leader?<br>Tax %:<br>Trades:<br>Time: | Tax %:<br><br>Selfless:<br><br>Selfish:<br><br>Rating: |
| P4<br>Leader?<br>Tax %:<br>Trades:<br>Time: | P4<br>Leader?<br>Tax %:<br>Trades:<br>Time: | P4<br>Leader?<br>Tax %:<br>Trades:<br>Time: | P4<br>Leader?<br>Tax %:<br>Trades:<br>Time: | Tax %:<br><br>Selfless:<br><br>Selfish:<br><br>Rating: |
| P5<br>Leader?<br>Tax %:<br>Trades:<br>Time: | P5<br>Leader?<br>Tax %:<br>Trades:<br>Time: | P5<br>Leader?<br>Tax %:<br>Trades:<br>Time: | P5<br>Leader?<br>Tax %:<br>Trades:<br>Time: | Tax %:<br><br>Selfless:<br><br>Selfish:<br><br>Rating: |

## Appendix D. Democratic Experiment Sheet



Democratic Experiment Sheet

| Round 1                                               | Round 2                                               | Round 3                                               | Round 4                                               | Leader?                                                |
|-------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------|--------------------------------------------------------|
| P1<br>Leader?<br>Tax %:<br>Votes:<br>Trades:<br>Time: | P1<br>Leader?<br>Tax %:<br>Votes:<br>Trades:<br>Time: | P1<br>Leader?<br>Tax %:<br>Votes:<br>Trades:<br>Time: | P1<br>Leader?<br>Tax %:<br>Votes:<br>Trades:<br>Time: | Tax %:<br><br>Selfless:<br><br>Selfish:<br><br>Rating: |
| P2<br>Leader?<br>Tax %:<br>Votes:<br>Trades:<br>Time: | P2<br>Leader?<br>Tax %:<br>Votes:<br>Trades:<br>Time: | P2<br>Leader?<br>Tax %:<br>Votes:<br>Trades:<br>Time: | P2<br>Leader?<br>Tax %:<br>Votes:<br>Trades:<br>Time: | Tax %:<br><br>Selfless:<br><br>Selfish:<br><br>Rating: |
| P3<br>Leader?<br>Tax %:<br>Votes:<br>Trades:<br>Time: | P3<br>Leader?<br>Tax %:<br>Votes:<br>Trades:<br>Time: | P3<br>Leader?<br>Tax %:<br>Votes:<br>Trades:<br>Time: | P3<br>Leader?<br>Tax %:<br>Votes:<br>Trades:<br>Time: | Tax %:<br><br>Selfless:<br><br>Selfish:<br><br>Rating: |
| P4<br>Leader?<br>Tax %:<br>Votes:<br>Trades:<br>Time: | P4<br>Leader?<br>Tax %:<br>Votes:<br>Trades:<br>Time: | P4<br>Leader?<br>Tax %:<br>Votes:<br>Trades:<br>Time: | P4<br>Leader?<br>Tax %:<br>Votes:<br>Trades:<br>Time: | Tax %:<br><br>Selfless:<br><br>Selfish:<br><br>Rating: |
| P5<br>Leader?<br>Tax %:<br>Votes:<br>Trades:<br>Time: | P5<br>Leader?<br>Tax %:<br>Votes:<br>Trades:<br>Time: | P5<br>Leader?<br>Tax %:<br>Votes:<br>Trades:<br>Time: | P5<br>Leader?<br>Tax %:<br>Votes:<br>Trades:<br>Time: | Tax %:<br><br>Selfless:<br><br>Selfish:<br><br>Rating: |

## Appendix E. Research Instructions and Tax Percentages

### Experiment Research Instructions

- 1) Hello everyone and thank you all for coming. This experiment is split into two parts and will take approximately ninety minutes to complete. You will be simulating one of two political institutions. Those being Democracy and Autocracy. For those who are unsure how these are defined, Democracy is a government by the people or their elected representatives, and Autocracy is a government by an individual with unrestricted authority.
- 2) The first part of the experiment will take place in the form of a game consisting of four rounds, in which one of you will either be chosen as the nation's leader via democratic vote by yourselves, or at random. It will be the leader's duty to levy taxes from your fellow participants and use those gathered resources to respond to a list of scenarios. If you were democratically elected, then upon responding to a scenario another election will take place. Please bear in mind that at the very least one of you will be unable to become leader during this experiment.
- 3) If you look to your right, you will notice three sets of bands. These will be your tokens throughout the experiment. Starting from the top, the green tokens represent your finances and will be needed for taxes. The blue tokens represent your supplies such as food and water. One blue token equals two green tokens. The orange tokens represent your assets. These are worth ten finance tokens and cannot be taken once in your possession. Although can be traded for other tokens at the beginning of a new round.
- 4) Speaking of the rounds, there are four in total and will proceed as follows. Stage one will consist of the recruitment of your leader and managing your economy. You are allowed to trade your resources amongst yourselves during this phase. Stage two shall involve the leader levying taxes from you all, available percentages can be found on the sheet provided. In the case a percentage involves a decimal, round up to the nearest whole number. Once the leader collects the requested resources, a scenario shall be provided to the leader who will then be able to discuss with on how to proceed. Once a decision is made, the game begins to second round, in which, democratically elected leaders will have to re-campaign whilst Autocratic leaders will immediately begin to levy taxes.
- 5) This process shall continue until the fourth and final scenario is resolved. Afterwards, you will all be given an Authentic Leadership Questionnaire to complete.
- 6) Once completed, you will be debriefed.

### Percentages

1 (1% = 0.01, 5% = 0.05, 10% = 0.1) 2 (10% = 0.2, 5% = 0.1, 1% = 0.02) 3 (10% = 0.3, 5% = 0.15, 1% = 0.03) 4 (10% = 0.4, 5% = 0.2, 1% = 0.04) 5 (10% = 0.5, 5% = 0.25, 1% = 0.05) 6 (10% = 0.6, 5% = 0.3, 1% = 0.06) 7 (10% = 0.7, 5% = 0.35, 0.07) 8 (10% = 0.8, 5% = 0.4, 1% = 0.08) 9 (10% = 0.9, 5% = 0.45, 1% = 0.09)

10 (10% = 1, 5% = 0.5, 1% = 0.1) 11 (10% = 1.1, 5% = 0.55, 1% = 0.11) 12 (10% = 1.2, 5% = 0.6, 1% = 0.12) 13 (10% = 1.3, 5% = 0.65, 1% = 0.13) 14 (10% = 1.4, 5% = 0.7, 1% = 0.14) 15 (10% =

1.5, 5% = 0.75, 1% = 0.15) 16 (10% = 1.6, 5% = 0.8, 1% = 0.16) 17 (10% = 1.7, 5% = 0.85, 1% = 0.17) 18 (10% = 1.8, 5% = 0.9, 1% = 0.18) 19 (10% = 1.9, 5% = 0.95, 1% = 0.19)

20 (10% = 2, 5% = 1, 1% = 0.2) 21 (10% = 2.1, 5% = 1.05, 1% = 0.21) 22 (10% = 2.2, 5% = 1.1, 1% = 0.22) 23 (10% = 2.3, 5% = 1.15, 1% = 0.23) 24 (10% = 2.4, 5% = 1.2, 1% = 0.24) 25 (10% = 2.5, 5% = 1.25, 1% = 0.25) 26 (10% = 2.6, 5% = 1.3, 1% = 0.26) 27 (10% = 2.7, 5% = 1.35, 1% = 0.27) 28 (10% = 2.8, 5% = 1.4, 1% = 0.28) 29 (10% = 2.9, 5% = 1.45, 1% = 0.29)

30 (10% = 3, 5% = 1.5, 1% = 0.3) 31 (10% = 3.1, 5% = 1.55, 1% = 0.31) 32 (10% = 3.2, 5% = 1.6, 1% = 0.32) 33 (10% = 3.3, 5% = 1.65, 1% = 0.33) 34 (10% = 3.4, 5% = 1.7, 1% = 0.34) 35 (10% = 3.5, 5% = 1.75, 1% = 0.35) 36 (10% = 3.6, 5% = 1.8, 1% = 0.36) 37 (10% = 3.7, 5% = 1.85, 1% = 0.37) 38 (10% = 3.8, 5% = 1.9, 1% = 0.38) 39 (10% = 3.9, 5% = 1.95, 1% = 0.39)

40 (10% = 4, 5% = 2, 1% = 0.4) 41 (10% = 4.1, 5% = 2.05, 1% = 0.41) 42 (10% = 4.2, 5% = 2.1, 1% = 0.42) 43 (10% = 4.3, 5% = 2.15, 1% = 0.43) 44 (10% = 4.4, 5% = 2.2, 1% = 0.44) 45 (10% = 4.5, 5% = 2.25, 1% = 0.45) 46 (10% = 4.6, 5% = 2.3, 1% = 0.46) 47 (10% = 4.7, 5% = 2.35, 1% = 0.47) 48 (10% = 4.8, 5% = 2.4, 1% = 0.48) 49 (10% = 4.9, 5% = 2.45, 1% = 0.49)

50 (10% = 5, 5% = 2.5, 1% = 0.5) 51 (10% = 5.1, 5% = 2.55, 1% = 0.51) 52 (10% = 5.2, 5% = 2.6, 1% = 0.52) 53 (10% = 5.3, 5% = 2.65, 1% = 0.53) 54 (10% = 5.4, 5% = 2.7, 1% = 0.54) 55 (10% = 5.5, 5% = 2.75, 1% = 0.55) 56 (10% = 5.6, 5% = 2.8, 1% = 0.56) 57 (10% = 5.7, 5% = 2.85, 1% = 0.57) 58 (10% = 5.8, 5% = 2.9, 1% = 0.58) 59 (10% = 5.9, 5% = 2.95, 1% = 0.59)

R1A: 40,6,1. 4,7,1. R1B: 43,5,1. 4,6,1.

R2A: 44,5,1. 3,9,1. R2B: 47,7,1. 0,6,1.

R3A: 43,5,1. 6,9,1. R3B: 51,7,1. 1,6,1.

R4A: 56,5,1. 9,9,1. R4B: 54,7,1. 0,6,1.

## Appendix F. Vignettes

1. Agricultural Surplus: The nation's farmland has produced an increased number of foodstuffs than originally approximated. How would you like to distribute these assets?

- Option A: Distribute surplus to the population.

- Effect: Group gains 2 supplies tokens each, you gain 1 supplies token.

- Option B: Export surplus to international neighbours.

- Effect: Distribute 4 supplies tokens to select members of the group, you gain 3 Finance tokens.

2. Trade Embargo: Due to a slew of international scandals, our neighbours have enacted a trade embargo on us. How should we respond?

- Option A: Seek international diplomacy to lift the embargo.

- Effect: Group gains 2 supplies tokens each, you lose 1 supplies token and 4 finance tokens.

- Option B: Use black market connections to gather supplies.

- Effect: Group loses 3 finance tokens each, you gain 2 supplies tokens.

3. Economic Boom: The economy has experienced an influx in productivity and resources. How would you like to use these additional funds?

- Option A: Use surplus finance to fund public projects.

- Effect: Group gains 3 finance tokens each, you lose 6 finance tokens.

- Option B: Use the surplus to boost your personal projects.

- Effect: Distribute 3 finance tokens to select ~~select~~ members of the group, you gain 4 finance tokens.

4. Tax Evasion Scandal: A ~~number of~~ the members within your government have been caught fraudulently hiding their assets from Revenue and Customs. How should we proceed?

- Option A: Crack down on tax evasion.

- Effect: Group gains 3 finance tokens each, you lose 5 finance tokens.

- Option B: Cover up the scandal to avoid backlash.

- Effect: Group loses 1 finance each token, you gain 3 finance tokens.

## Appendix G. Authentic Leadership Questionnaire

### The Authentic Leadership Questionnaire: (Walumbwa et al., 2008).

Instructions: The following survey items refer to your leader's style, as you perceive it. Judge how frequently each statement fits his or her leadership style using the following scale: 0=not at all, 1=once in a while, 2=sometimes 3=fairly often 4=frequently

My Leader:

1. Says exactly what he or she means..... 0 1 2 3 4
2. Admits mistakes when they are made..... 0 1 2 3 4
3. Encourages everyone to speak their mind..... 0 1 2 3 4
4. Tells you the hard truth..... 0 1 2 3 4
5. Displays emotions exactly in line with feelings..... 0 1 2 3 4
6. Demonstrates beliefs that are consistent with actions..... 0 1 2 3 4
7. Makes decisions based on his or her core values..... 0 1 2 3 4
8. Asks you to take positions that support your core values..... 0 1 2 3 4
9. Makes difficult decisions based on high standards of ethical conduct..... 0 1 2 3 4
10. Solicits views that challenge his or her deeply held positions..... 0 1 2 3 4
11. Analyses relevant data before coming to a decision..... 0 1 2 3 4
12. Listens carefully to different points of view before coming to conclusions..... 0 1 2 3 4
13. Seeks feedback to improve interactions with others..... 0 1 2 3 4
14. Accurately describes how others view his or her capabilities..... 0 1 2 3 4
15. Knows when it is time to reevaluate his or her positions on important issues..... 0 1 2 3 4
16. Shows he or she understands how specific actions impact others..... 0 1 2 3 4

## Appendix H. Democratic Information Sheet



**Prifysgol Cymru**  
Y Drindod Dewi Sant  
**University of Wales**  
Trinity Saint David

Centre for Psychology and Counselling

SA1 Campus

Swansea

### **Democratic Study Information Sheet**

This document provides key information regarding this study, along with details about what will be expected of you as a participant. With that in mind, please read this with care before turning to the consent form.

The purpose of this study is to explore the effects of power on leadership on two institutions.

During this experiment you will be required to carry out the following actions:

- Fill out a brief demographic questionnaire requesting basic demographic information
- Manage a token economy with your peers.
- Vote on a leader during a campaign.
- Receive four vignettes pertaining to government crises and discuss proceedings.
- Fill out a questionnaire in regards to your leader(s') actions in power.

At the end of the study, a debrief sheet will be provided.

If you have any questions or concerns regarding this experiment, then please contact the researcher at present, or their supervisor Paul Hutchings at [paul.hutchings@uwtsd.ac.uk](mailto:paul.hutchings@uwtsd.ac.uk).

If you are happy to take part in the experiment, then please fill out the consent form provided.

If at any time you wish to leave the experiment, then you may notify the researcher at once. At the end of the experiment, you will be asked if you are happy with your data being saved and used for the study. If you agree, then your results will be anonymised and untraceable until its later deletion. If you do not wish for your data to be used in this research, then please notify the researcher.

## Appendix I. Autocratic Information Sheet



Prifysgol Cymru  
Y Drindod Dewi Sant  
**University of Wales**  
Trinity Saint David

Centre for Psychology and Counselling

SA1 Campus

Swansea

### **Autocratic Study Information Sheet**

This document provides key information regarding this study, along with details about what will be expected of you as a participant. With that in mind, please read this with care before turning to the consent form.

The purpose of this study is to explore the effects of power on leadership on two institutions.

During this experiment you will be required to carry out the following actions:

- Fill out a brief demographic questionnaire requesting basic demographic information
- Manage a token economy with your peers.
- Receive four vignettes pertaining to government crises and discuss proceedings.
- Fill out a questionnaire in regard to your leader's actions in power.

At the end of the study, a debrief sheet will be provided.

If you have any questions or concerns regarding this experiment, then please contact the researcher at present, or their supervisor Paul Hutchings at [paul.hutchings@uwtsd.ac.uk](mailto:paul.hutchings@uwtsd.ac.uk).

If you are happy to take part in the experiment, then please fill out the consent form provided.

If at any time you wish to leave the experiment, then you may notify the researcher at once. At the end of the experiment, you will be asked if you are happy with your data being saved and used for the study. If you agree, then your results will be anonymised and untraceable until its later deletion. If you do not wish for your data to be used in this research, then please notify the researcher.

|

## Appendix J. Consent Form



Centre for Psychology and Counselling  
SA1 Campus  
Swansea

### **Study Consent Form**

I understand that this study is being carried out by a 3<sup>rd</sup> year student for the purpose of their Dissertation module assessment, and that it involves taking part in a group simulation of politics and game theory.

I understand that this study will take approximately an hour.

I understand that my participation is voluntary and that I am free to withdraw from the study at any time during or before the end of the study without granting a reason.

I understand that once the study concludes, my data will be anonymised, confidential, and will not be traceable to me as my name will be replaced with a unique code given by the Experimental management system. As directed by the Data Protection Act (2018), my data will only be stored until the completion of the study.

I understand that if I have any questions or concerns regarding the study then I can contact the researchers during or after the completion of the study on; Elliott O'Donnell ([2202079@student.uwtsd.ac.uk](mailto:2202079@student.uwtsd.ac.uk)), or their supervisor Professor Paul Hutchings ([paul.hutchings@uwtsd.ac.uk](mailto:paul.hutchings@uwtsd.ac.uk))

I understand that at the end of the study I will be provided with a debrief form.

**Please sign below if you agree to following:**

**I am aged 18 years of age or over**

**I understand I can withdraw at any time without penalty**

**I understand my data will be held confidentially with a code assigned in place of my name**

**I understand all the above information on this consent form**

**I consent to taking part in this study**

.....

## Appendix K. Debrief Form



**Prifysgol Cymru**  
Y Drindod Dewi Sant  
**University of Wales**  
Trinity Saint David

Centre for Psychology and Counselling  
SA1 Campus  
Swansea

**Study Debrief Form**

**Does power corrupt leadership in an Undergraduate population: Investigating whether time in power erodes quality of leadership in two institutions.**

Thank you for taking part in this study.

The aim of this experiment was to investigate whether the selflessness of one's leadership would diminish over time. This was carried out via two groups simulating two different institutions of statecraft (Democracy and Autocracy). Specifically, we wanted to observe whether the constant leadership under Autocratic rule would conclude with higher levels of selfishness and lower levels of perceived authentic leadership. Results from this study will constitute the leader(s') actions during their terms in power along with your answers from the Authentic Leadership Questionnaire (Pioli, 2020).

**If you wish to withdraw your data from the study, then please inform the researcher now.** Afterwards, all of your data will become confidential and untraceable. Once you confirm that you wish to submit your data, you will not be able to reclaim it.

If taking part in this experiment has raised any questions, then please feel free to speak to the researcher or contact their supervisor professor Paul Hutchings at [paul.hutchings@uwtsd.ac.uk](mailto:paul.hutchings@uwtsd.ac.uk).

**Thank you once more for taking part in this study.**

Level six researcher

Elliott O'Donnell

BSc Psychology and Counselling

University of Wales Trinity St David, Swansea

## Appendix L. SPSS Variable and Data

|    | Name      | Type    | Width | Decimals | Label | Values          | Missing | Columns | Align | Measure | Role  |
|----|-----------|---------|-------|----------|-------|-----------------|---------|---------|-------|---------|-------|
| 1  | Gender    | Numeric | 8     | 2        |       | {1.00, Male}... | None    | 8       | Right | Nominal | Input |
| 2  | Age       | Numeric | 8     | 2        |       | None            | None    | 8       | Right | Nominal | Input |
| 3  | Govt      | Numeric | 8     | 2        |       | {1.00, Dem...   | None    | 8       | Right | Ordinal | Input |
| 4  | Rating    | Numeric | 8     | 2        |       | None            | None    | 8       | Right | Ordinal | Input |
| 5  | AvrgeTime | Numeric | 8     | 2        |       | None            | None    | 8       | Right | Nominal | Input |
| 6  | Assets    | Numeric | 8     | 2        |       | None            | None    | 8       | Right | Nominal | Input |
| 7  | Group     | Numeric | 8     | 2        |       | {1.00, G1}...   | None    | 8       | Right | Nominal | Input |
| 8  | Choice1   | Numeric | 8     | 2        |       | {1.00, A}...    | None    | 8       | Right | Nominal | Input |
| 9  | Choice2   | Numeric | 8     | 2        |       | {1.00, A}...    | None    | 8       | Right | Nominal | Input |
| 10 | Choice3   | Numeric | 8     | 2        |       | {1.00, A}...    | None    | 8       | Right | Nominal | Input |
| 11 | Choice4   | Numeric | 8     | 2        |       | {1.00, A}...    | None    | 8       | Right | Nominal | Input |
| 12 | Taxes1    | Numeric | 8     | 2        |       | None            | None    | 8       | Right | Nominal | Input |
| 13 | Taxes2    | Numeric | 8     | 2        |       | None            | None    | 8       | Right | Nominal | Input |
| 14 | Taxes3    | Numeric | 8     | 2        |       | None            | None    | 8       | Right | Nominal | Input |
| 15 | Taxes4    | Numeric | 8     | 2        |       | None            | None    | 8       | Right | Nominal | Input |
| 16 | Time1     | Numeric | 8     | 2        |       | None            | None    | 8       | Right | Nominal | Input |
| 17 | Time2     | Numeric | 8     | 2        |       | None            | None    | 8       | Right | Nominal | Input |
| 18 | Time3     | Numeric | 8     | 2        |       | None            | None    | 8       | Right | Nominal | Input |
| 19 | Time4     | Numeric | 8     | 2        |       | None            | None    | 8       | Right | Nominal | Input |
| 20 | Q1L1      | Numeric | 8     | 2        |       | {00, Not at ... | None    | 8       | Right | Scale   | Input |
| 21 | Q2L1      | Numeric | 8     | 2        |       | {00, Not at ... | None    | 8       | Right | Scale   | Input |
| 22 | Q3L1      | Numeric | 8     | 2        |       | {00, Not at ... | None    | 8       | Right | Scale   | Input |
| 23 | Q4L1      | Numeric | 8     | 2        |       | {00, Not at ... | None    | 8       | Right | Scale   | Input |
| 24 | Q5L1      | Numeric | 8     | 2        |       | {00, Not at ... | None    | 8       | Right | Scale   | Input |

|    | Name  | Type    | Width | Decimals | Label | Values          | Missing | Columns | Align | Measure | Role  |
|----|-------|---------|-------|----------|-------|-----------------|---------|---------|-------|---------|-------|
| 25 | Q6L1  | Numeric | 8     | 2        |       | {00, Not at ... | None    | 8       | Right | Scale   | Input |
| 26 | Q7L1  | Numeric | 8     | 2        |       | {00, Not at ... | None    | 8       | Right | Scale   | Input |
| 27 | Q8L1  | Numeric | 8     | 2        |       | {00, Not at ... | None    | 8       | Right | Scale   | Input |
| 28 | Q9L1  | Numeric | 8     | 2        |       | {00, Not at ... | None    | 8       | Right | Scale   | Input |
| 29 | Q10L1 | Numeric | 8     | 2        |       | {00, Not at ... | None    | 8       | Right | Scale   | Input |
| 30 | Q11L1 | Numeric | 8     | 2        |       | {00, Not at ... | None    | 8       | Right | Scale   | Input |
| 31 | Q12L1 | Numeric | 8     | 2        |       | {00, Not at ... | None    | 8       | Right | Scale   | Input |
| 32 | Q13L1 | Numeric | 8     | 2        |       | {00, Not at ... | None    | 8       | Right | Scale   | Input |
| 33 | Q14L1 | Numeric | 8     | 2        |       | {00, Not at ... | None    | 8       | Right | Scale   | Input |
| 34 | Q15L1 | Numeric | 8     | 2        |       | {00, Not at ... | None    | 8       | Right | Scale   | Input |
| 35 | Q16L1 | Numeric | 8     | 2        |       | {00, Not at ... | None    | 8       | Right | Scale   | Input |
| 36 | Q1L2  | Numeric | 8     | 2        |       | {00, Not at ... | None    | 8       | Right | Scale   | Input |
| 37 | Q2L2  | Numeric | 8     | 2        |       | {00, Not at ... | None    | 8       | Right | Scale   | Input |
| 38 | Q3L2  | Numeric | 8     | 2        |       | {00, Not at ... | None    | 8       | Right | Scale   | Input |
| 39 | Q4L2  | Numeric | 8     | 2        |       | {00, Not at ... | None    | 8       | Right | Scale   | Input |
| 40 | Q5L2  | Numeric | 8     | 2        |       | {00, Not at ... | None    | 8       | Right | Scale   | Input |
| 41 | Q6L2  | Numeric | 8     | 2        |       | {00, Not at ... | None    | 8       | Right | Scale   | Input |
| 42 | Q7L2  | Numeric | 8     | 2        |       | {00, Not at ... | None    | 8       | Right | Scale   | Input |
| 43 | Q8L2  | Numeric | 8     | 2        |       | {00, Not at ... | None    | 8       | Right | Scale   | Input |
| 44 | Q9L2  | Numeric | 8     | 2        |       | {00, Not at ... | None    | 8       | Right | Scale   | Input |
| 45 | Q10L2 | Numeric | 8     | 2        |       | {00, Not at ... | None    | 8       | Right | Scale   | Input |
| 46 | Q11L2 | Numeric | 8     | 2        |       | {00, Not at ... | None    | 8       | Right | Scale   | Input |
| 47 | Q12L2 | Numeric | 8     | 2        |       | {00, Not at ... | None    | 8       | Right | Scale   | Input |
| 48 | Q13L2 | Numeric | 8     | 2        |       | {00, Not at ... | None    | 8       | Right | Scale   | Input |

|    | Name  | Type    | Width | Decimals | Label | Values          | Missing | Columns | Align                                                                                       | Measure                                                                                     | Role                                                                                        |
|----|-------|---------|-------|----------|-------|-----------------|---------|---------|---------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| 73 | Q6L4  | Numeric | 8     | 2        |       | {00, Not at ... | None    | 8       |  Right   |  Scale   |  Input   |
| 74 | Q7L4  | Numeric | 8     | 2        |       | {00, Not at ... | None    | 8       |  Right   |  Scale   |  Input   |
| 75 | Q8L4  | Numeric | 8     | 2        |       | {00, Not at ... | None    | 8       |  Right   |  Scale   |  Input   |
| 76 | Q9L4  | Numeric | 8     | 2        |       | {00, Not at ... | None    | 8       |  Right  |  Scale |  Input |
| 77 | Q10L4 | Numeric | 8     | 2        |       | {00, Not at ... | None    | 8       |  Right |  Scale |  Input |
| 78 | Q11L4 | Numeric | 8     | 2        |       | {00, Not at ... | None    | 8       |  Right |  Scale |  Input |
| 79 | Q12L4 | Numeric | 8     | 2        |       | {00, Not at ... | None    | 8       |  Right |  Scale |  Input |
| 80 | Q13L4 | Numeric | 8     | 2        |       | {00, Not at ... | None    | 8       |  Right |  Scale |  Input |
| 81 | Q14L4 | Numeric | 8     | 2        |       | {00, Not at ... | None    | 8       |  Right |  Scale |  Input |
| 82 | Q15L4 | Numeric | 8     | 2        |       | {00, Not at ... | None    | 8       |  Right |  Scale |  Input |
| 83 | Q16L4 | Numeric | 8     | 2        |       | {00, Not at ... | None    | 8       |  Right |  Scale |  Input |

[illegible]

[illegible]

|    | Q5L4 | Q6L4 | Q7L4 | Q8L4 | Q9L4 | Q10L4 | Q11L4 | Q12L4 | Q13L4 | Q14L4 | Q15L4 | Q16L4 |
|----|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|
| 1  | -    | -    | -    | -    | -    | -     | -     | -     | -     | -     | -     | -     |
| 2  | -    | -    | -    | -    | -    | -     | -     | -     | -     | -     | -     | -     |
| 3  | -    | -    | -    | -    | -    | -     | -     | -     | -     | -     | -     | -     |
| 4  | -    | -    | -    | -    | -    | -     | -     | -     | -     | -     | -     | -     |
| 5  | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00  | 3.00  | 4.00  | 4.00  | 2.00  | 2.00  | 4.00  |
| 6  | 3.00 | 3.00 | 2.00 | 3.00 | 4.00 | 2.00  | 2.00  | 2.00  | 2.00  | 4.00  | 1.00  | 3.00  |
| 7  | -    | -    | -    | -    | -    | -     | -     | -     | -     | -     | -     | -     |
| 8  | 3.00 | 4.00 | 4.00 | 4.00 | 4.00 | 3.00  | 4.00  | 4.00  | 4.00  | 4.00  | 4.00  | -     |
| 9  | -    | -    | -    | -    | -    | -     | -     | -     | -     | -     | -     | -     |
| 10 | -    | -    | -    | -    | -    | -     | -     | -     | -     | -     | -     | -     |
| 11 | -    | -    | -    | -    | -    | -     | -     | -     | -     | -     | -     | -     |
| 12 | -    | -    | -    | -    | -    | -     | -     | -     | -     | -     | -     | -     |
| 13 | -    | -    | -    | -    | -    | -     | -     | -     | -     | -     | -     | -     |
| 14 | -    | -    | -    | -    | -    | -     | -     | -     | -     | -     | -     | -     |
| 15 | 3.00 | 2.00 | 4.00 | -    | 3.00 | 4.00  | 3.00  | 2.00  | 2.00  | -     | 3.00  | 4.00  |
| 16 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00  | 4.00  | 2.00  | 4.00  | 4.00  | 3.00  | 4.00  |
| 17 | -    | -    | -    | -    | -    | -     | -     | -     | -     | -     | -     | -     |
| 18 | -    | -    | -    | -    | -    | -     | -     | -     | -     | -     | -     | -     |

## Appendix M. SPSS Output

| Hypothesis Test Summary |                                                                     |                                         |                     |                             |
|-------------------------|---------------------------------------------------------------------|-----------------------------------------|---------------------|-----------------------------|
|                         | Null Hypothesis                                                     | Test                                    | Sig. <sup>a,b</sup> | Decision                    |
| 1                       | The distribution of Rating is the same across categories of Govt.   | Independent-Samples Mann-Whitney U Test | 1.000 <sup>c</sup>  | Retain the null hypothesis. |
| 2                       | The distribution of AvrgTime is the same across categories of Govt. | Independent-Samples Mann-Whitney U Test | .582 <sup>c</sup>   | Retain the null hypothesis. |

a. The significance level is .050.

b. Asymptotic significance is displayed.

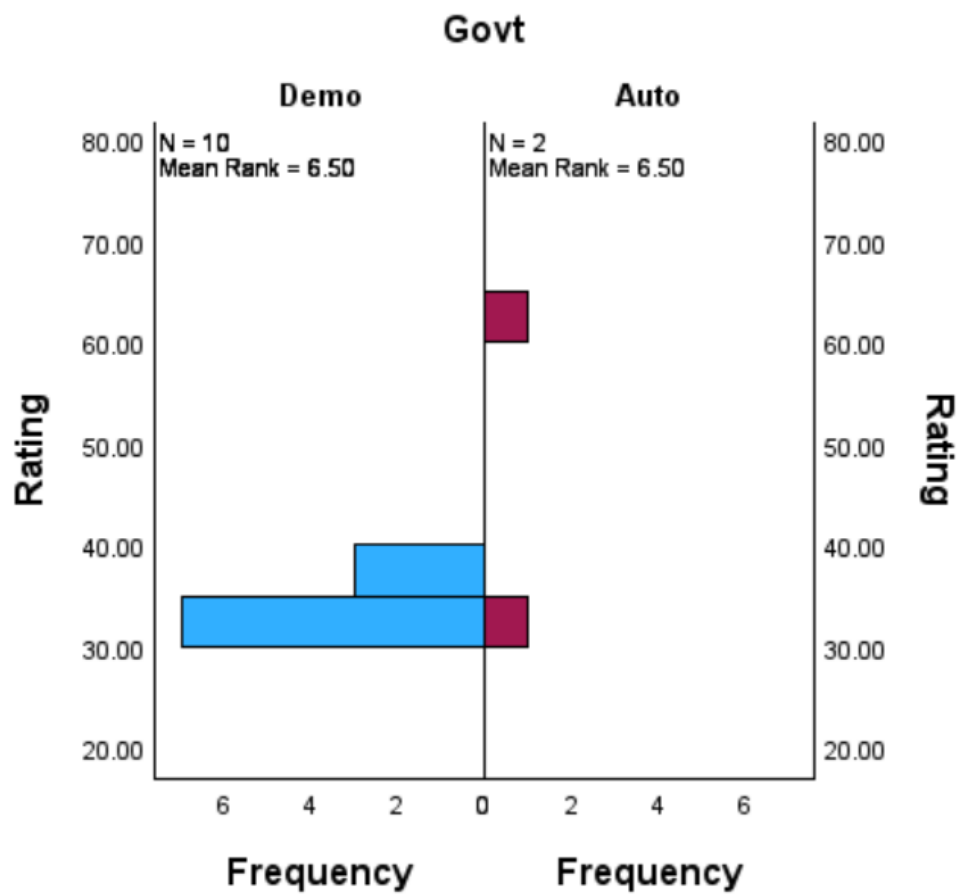
c. Exact significance is displayed for this test.

### Independent-Samples Mann-Whitney U Test

#### Rating across Govt

| Independent-Samples Mann-Whitney U Test Summary |        |
|-------------------------------------------------|--------|
| Total N                                         | 12     |
| Mann-Whitney U                                  | 10.000 |
| Wilcoxon W                                      | 13.000 |
| Test Statistic                                  | 10.000 |
| Standard Error                                  | 4.638  |
| Standardized Test Statistic                     | .000   |
| Asymptotic Sig.(2-sided test)                   | 1.000  |
| Exact Sig.(2-sided test)                        | 1.000  |

## Independent-Samples Mann-Whitney U Test

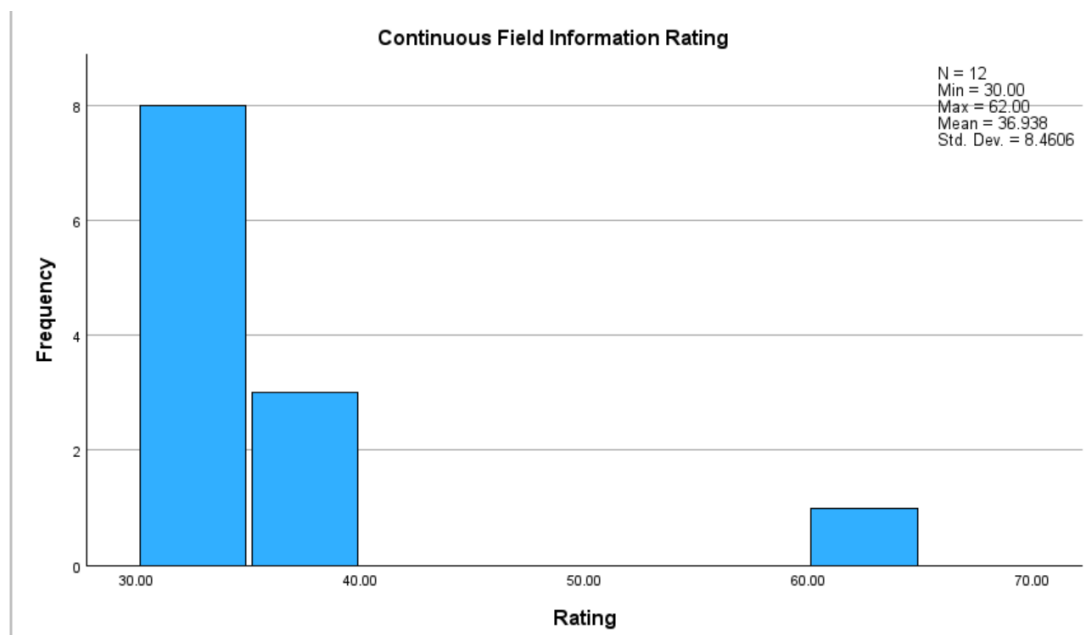
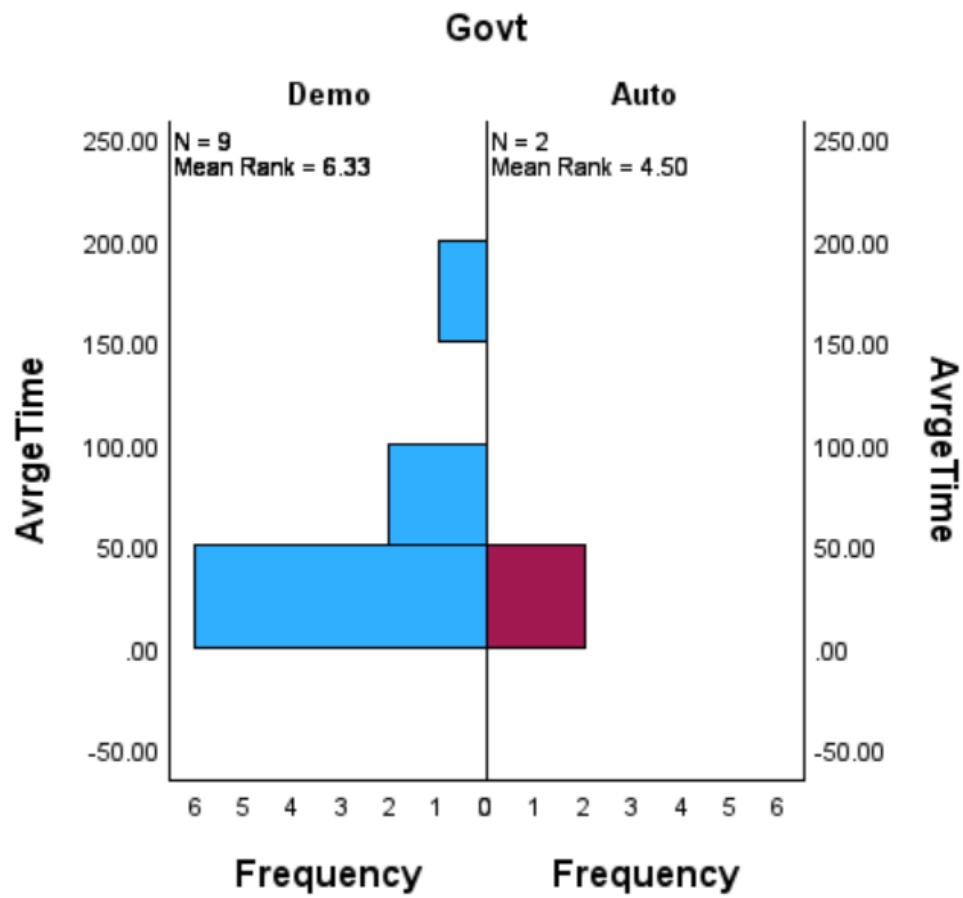


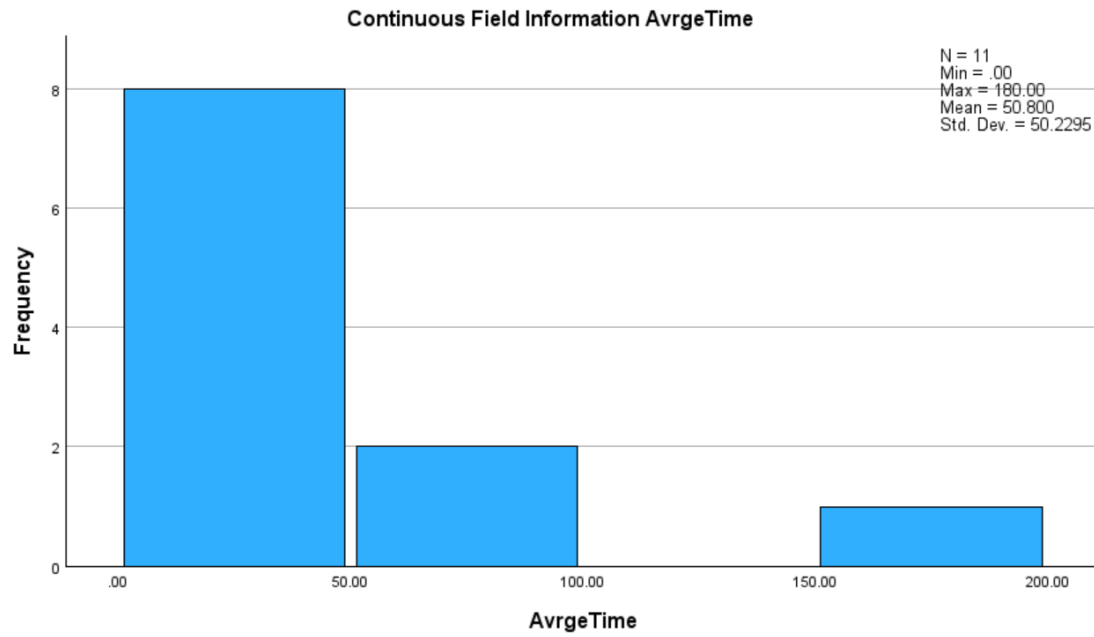
### AvrgeTime across Govt

#### Independent-Samples Mann-Whitney U Test Summary

|                               |       |
|-------------------------------|-------|
| Total N                       | 11    |
| Mann-Whitney U                | 6.000 |
| Wilcoxon W                    | 9.000 |
| Test Statistic                | 6.000 |
| Standard Error                | 4.243 |
| Standardized Test Statistic   | -.707 |
| Asymptotic Sig.(2-sided test) | .480  |
| Exact Sig.(2-sided test)      | .582  |

# Independent-Samples Mann-Whitney U Test





➔ **Means**

**Case Processing Summary**

|                  | Included |         | Cases Excluded |         | Total |         |
|------------------|----------|---------|----------------|---------|-------|---------|
|                  | N        | Percent | N              | Percent | N     | Percent |
| AvrgeTime * Govt | 11       | 47.8%   | 12             | 52.2%   | 23    | 100.0%  |
| Rating * Govt    | 12       | 52.2%   | 11             | 47.8%   | 23    | 100.0%  |

**Report**

| Govt  |        | AvrgeTime | Rating  |
|-------|--------|-----------|---------|
| Demo  | N      | 9         | 10      |
|       | Median | 45.0000   | 34.2500 |
| Auto  | N      | 2         | 2       |
|       | Median | 27.3750   | 46.0000 |
| Total | N      | 11        | 12      |
|       | Median | 36.0000   | 34.2500 |

