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# Strategies Global Virtual Team Leaders Use to Improve Trust and Communication

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This is to certify that the doctoral study by

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Walden University
2022

Abstract

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MBA, Argosy University, 2015

BS, Argosy University, 2014




Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration




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August 2022

Abstract

A global virtual team (GVT) members' inability to effectively build trust and communication can negatively impact organizational outcomes. Organizational leaders are concerned with team members' inability to build trust and communication, which is the leading cause of reduced productivity and efficiency levels within GVTs. Grounded in the social exchange theory, the purpose of this qualitative multiple case study was to explore strategies GVT leaders use to improve trust and communication among GVT members. The participants were 18 GVT business leaders from six organizations located in the Pacific Northwest of the United States. Data were collected using semistructured interviews and a review of organizational documentation. Through thematic analysis, four themes were identified: (a) information sharing through transparency, (b) the creation and iteration of best practices/strategies, (c) localization development, and (d) the development of cross-functional work tools. A key recommendation is for GVT leaders to define team meeting styles and frequencies. The implications for positive social change include the potential for organizations to increase human resources in other regions of the globe and support the local communities and economies of their workforce.

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Dedication

This work is dedicated to my husband, best friend, and partner in crime, RFM; our three children, Brycin, Xavier, and Cailyn, who drive me; and Kurt Stober, our beloved uncle we lost while on this journey. It is the road less traveled that we have always chosen, as it has always motivated us, brought out the greatest aspects of ourselves, and sent us off on the most epic of adventures. Without you, I would not stand were I do today, as your patience, love, and compassion make me the human I am proud to be. To Uncle, who always believed, praised, and accepted us for our quirkiness and was always there to cheer us on, this is for you because you believed I could.

And for my sister Kiersten…who became our sunflower.

Acknowledgments

I would like to honor my mother, Linda, sister Kaitlin, best friends Romey and Erin, and our world for always picking me up when I was down, supporting my dreams, but most of all, believing in me.

To my faculty members, who humbled me, motivated me, and pushed me beyond my capabilities.

Cheers.

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Section 1: Foundation of the Study

The tech industry has transitioned into a high-tech market filled with continuous innovation and development, which has resulted in the tech industry becoming a force in the global economy through human and material resource consumption (Liu et al., 2019). Specific regions of the United States have become hubs for technological advancements, such as Silicon Valley, which houses large microelectronic firms, computer networking firms, and biotechnology firms, and Seattle, where leading technology firms and telecommunication firms reside (Cohen & Fields, 1999). These Pacific Northwest subregion examples have established strong social communities and networks through local companies like Microsoft, Amazon, Facebook, and LinkedIn. Along with others in the Pacific Northwest, these organizations have optimized production and innovation in technology, specifically the gaming industry, through the diversification of social capital and development globally, which have enabled organizations to increase and improve their innovative technologies or products.

## Background of the Problem

As organizations expand and diversify their teams through social capital, cultural intelligence strategies are necessary to improve employee trust and communication. Pudikova et al. (2019) and Sucher and Cheung (2015) suggested a need for enhanced communication forums to augment employee cross-cultural competency levels, as cultural intelligence strategies have been found to increase productivity and efficiencies across global team strategies established by organizations. Organizations utilize technology to refine strategies and communication among their employee base through

various platforms (Pudikova et al., 2019; Sheridan et al., 2018). Some of the platforms employed are online conferencing programs, virtual reality, and communication applications.

A need for understanding and awareness of cultural intelligence strategies to improve cognitive intelligence among organizations and employees, as globalization increases, has been a hot topic among organizational leaders (Cotton et al., 2019). Business leaders are trying to understand how organizations can start incorporating cultural competency training into their corporate culture as the need for global business skills increases among business employees. Organizations use cultural intelligence strategies to expand the productivity and effectiveness of leadership and communicate and improve trust among team members. Additionally, cultural intelligence strategies improve productivity and efficiencies across global teams through strategies established by organizations (Pudikova et al., 2019; Sucher & Cheung, 2015). Identifying the cultural intelligence strategies within virtual teams in the tech industry, utilized to increase trust and communication, whether through technology or engagement, could improve team efficiency and productivity of other sectors with global virtual teams (GVTs).

## Problem and Purpose

Cultural intelligence strategies increase productivity and team efficiency by developing trust and communication within GVTs (Kadam et al., 2020; Presbitero, 2020). In a 2016 survey of 1,372 global corporate participants, 85% noted they worked on a virtual team, but only 22% noted receiving training on virtual team development (Maes & Weldy, 2018). The general business problem was that some GVTs experience lower

levels of productivity and team efficiency because of a lack of cultural intelligence strategies utilized to improve trust and communication among GVT members. The specific business problem was that some leaders lack cultural intelligence strategies to improve trust and communication among GVT members.

The purpose of this qualitative multiple case study was to explore cultural intelligence strategies that GVT leaders use to improve trust and communication among GVT members. The target population included 18 GVT leaders from six video gaming organizations who were employed in their role for a minimum of 5 years and were based in the Pacific Northwest and who had implemented strategies to improve trust and communication. The implications for positive social change included the potential to improve team members' cultural intelligence through strategies that build trust and communication, which could improve innovation and economic reinvestment in local communities.

## Population and Sampling

The target population selected for this study included 18 business leaders from six organizations located in the Pacific Northwest who were interviewed using a semistructured interview process. I also reviewed organizational documents for relevant information. Each organization had three leaders, each representing a different team vertical: Engineering, Art, and Production. Using six organizations allowed the population within each vertical to provide a different perspective of GVT management. The participant eligibility criteria included business leaders who have implemented strategies to improve trust and communication and led GVTs to successfully develop and

launch video games across multiple platforms, such as XBOX, Nintendo Switch, and Sony Playstation. Eligible leaders were required to have worked within the video gaming industry for 5 years and had a minimum of seven or more direct reports. I use purposeful sampling to recruit participants until I obtained the study sample size.

## Nature of the Study

Researchers can use qualitative, quantitative, or mixed methodologies for their research (Saunders et al., 2015). Qualitative researchers use the qualitative method to explore a phenomenon through various designs (Yin, 2018). I used the qualitative method for this study because I explored a phenomenon through multiple designs. Quantitative researchers use hypotheses to establish a relationship between independent and dependent variables (Saunders et al., 2015). The quantitative research method was not applied because I was not testing a hypothesis to establish the relationship between variables. Researchers utilize the mixed method to disseminate the business phenomenon from qualitative and quantitative perspectives (Saunders et al., 2015). The mixed method was not used because I did not have a quantitative component to my study.

I chose a multiple case study design in this study. In multiple case research, a researcher investigates a phenomenon by interpreting the data collected from numerous participants who observed phenomena in a real-life environment (Saunders et al., 2015). I chose a multiple case study for my study because I sought to understand phenomena from numerous participants in a real-life situation. In phenomenological research, a researcher aims to analyze phenomena through human experiences, as lived by the interviewed individuals (Arpanantikul et al., 2020). A phenomenological study was not employed

because I was not analyzing phenomena through human experiences, as lived by participants. Researchers use ethnographic research to study phenomena in their existing environment through participation or observation of participants with shared experiences (Leedy & Ormrod, 2005). Ethnographic research was not utilized because I did not participate or observe participants with shared experiences.

## Research Question

What cultural intelligence strategies do leaders use to improve trust and communication among GVT members?

## Interview Questions

1. How do multicultural teams influence your GVT?

2. What length of set periods do your GVTs collaborate?

3. What cultural intelligence strategies do you use to improve GVT member trust and communication?

4. How, as a leader, are you prepared to employ cultural intelligence strategies?

5. How do you measure improved trust and communication among GVT members?

6. What cultural intelligence strategies do you use to increase swift trust with the addition of new GVT members?

7. What cultural intelligence strategies do you use to help instill trust among team members within the context of ability, integrity, and benevolence?

8. How do cultural intelligence strategies impact productivity?

9. How do cultural intelligence strategies impact team efficiency?

10. How do you measure the effectiveness of cultural intelligence strategies?

11. What additional information would you like to contribute to this study?

**Conceptual Framework**

Social exchange theory (SET) was the conceptual framework of this study. In 1958, Homans derived the SET from economics, sociology, and psychology constructs to understand the costs and benefits of relationships within economic exchanges based on the exchange of an intangible currency, such as rewards, recognition, and support. This theory asserts that trust between parties and communication on expectations will meet the obligations of an organization through team cohesion and development (Homans, 1958; Wei et al., 2019). Thibaut and Kelley (1959) speculated that social exchange is the relationship between individuals who increase cultural intelligence through a repeated exchange of an intangible currency to achieve a common goal, such as knowledge sharing.

Lerner and Lerner (1981) postulated that SET identifies the shared interactions between individuals based on the expected social rewards of the relationship, which suggests that social behavior is the result of an exchange process to maximize benefits (innovation) and minimize costs (productivity and efficiency). Lerner and Lerner identified the tenets of SET as self-interest, interdependence, and reciprocity. SET relationships are developed through trust and communication and based on the tenets of SET.

I selected the SET as the conceptual framework for this study for three reasons: (a) the theory was appropriate to assess the cultural intelligence between GVTs members,

which generated trust and communication, (b) the theory was appropriate for GVTs who sought to improve innovation, productivity, and efficiency, and (c) the theory was appropriate for understanding behaviors among cross-cultural team members. The SET was the conceptual framework for understanding how leaders used strategies to improve trust and communication among GVT members.

## Operational Definitions

This section includes definitions of terms utilized in this research study. Defined terms may have common meanings, but the outlined definitions align the meanings related to the context of this study.

*Cross-cultural competence:* Cross-cultural competence is the process individuals understand and effectively respond to individuals, systems, or communities of diverse backgrounds, languages, or cultures (van Driel & Gabrenya, 2012).

*Cultural intelligence:* Cultural intelligence is comprised of behaviors and responses, which improve an individual's ability to understand, respond, and adjust to changes respectfully in social exchanges (Earley & Ang, 2003).

*Global virtual teams:* Global virtual teams (GVTs) are comprised of geographical heterogeneous and remote team members who communicate through computer-based mediums (Algesheimer et al., 2011).

*Information communication technology:* Information and communication technology (ICT) enables global virtual team members to work together in geographically remote locations and consists of audio and video exchanges through a defined platform (Petter et al., 2019).

*Social exchange theory:* Social exchange theory (SET), within a business environment, consists of two or more trust-based individuals with aligned self-interested and interdependence to achieve a common goal through reciprocity (Homans, 1958; Lerner & Lerner, 1981).

*Virtual worker:* A virtual worker is a member of a nontraditional or noncentrally located team, who typically works in a remote space, and collaborates with team members through information and communication technologies (Alsharo et al., 2017).

## Assumptions, Limitations, and Delimitations

### Assumptions

Assumptions are ideas or beliefs accepted as truths without validation (Ellis & Levy, 2009). The primary assumption for this study was that all participants would be honest and unbiased in their responses to my interview questions. Additionally, I assumed that the participants' cultural intelligence learning capabilities unconsciously impacted how other individuals learned, obtained, and behaved in varying cultural environments. I attempted to minimize bias through set parameters of the participants, communication of the purpose of my study, and clarity within my research questions to ensure the participants understood the significance of the study.

### Limitations

Limitations of a study are weaknesses that can affect the study's internal validity (Ellis & Levy, 2009). Limitations of the study were the cultural differences of the organizations where the participants have worked and the time allotted to establish trust with the participants, which could have impacted the study. The study participants were

managers and organization owners/founders of six gaming companies in the Pacific

Northwest. The participants had all been in the gaming industry for over 5 years, which

could have generated limitations to the study in the ability of the participants to separate

and identify critical factors and strategies that impacted cultural intelligence, trust, and

communication within their teams. Additional limitations could have existed within the

tight-knit community of the gaming industry, which has enabled teams to cross-pollinate

from one organization to another and could have impacted the legitimacy of the impact

specific strategies had on trust and communication.

**Delimitations**

Delimitations are the scope of the study and set prescribed boundaries within the

study (Ellis & Levy, 2009). Delimitations of the study included the scope of the

participants' geographic locations: the Pacific Northwest. The literature review consisted

of national, regional, and global studies on virtual teams where participants' teams

resided; however, the participants in my study were polled from one defined region for

this study. The boundaries of the research included a literature review on cultural

intelligence, SET, trust, communication, and productivity and efficiency, which was

limited to the perceptions of the researched participants. This research study aimed to

build onto the body of knowledge surrounding cultural intelligence strategies that impact

trust and communication within GVTs and provide insights into strategies that improve

behaviors that can affect social change.

**Significance of the Study**

**Contribution to Business Practice**

The study findings might add value to businesses and improve business practices by enabling global organization leaders to identify and implement successful cultural intelligence strategies to strengthen trust and communication within GVTs. Trust and communication are integral to a GVT leader's ability to execute an organization's vision and mission (Connaughton & Shuffler, 2007). Leaders who can develop and implement cross-cultural intelligence strategies can improve their team trust and communication, impacting innovation, productivity, and efficiency and establishing a competitive advantage (Goldstein & Gafni, 2019).

The findings from this study could benefit GVT leaders by implementing cultural intelligence strategies that improve trust and communication among team members. A leader's ability to implement cultural intelligence strategies within virtual teams has improved communication and enhanced trust (Nordbäck & Espinosa, 2019). Trust and communication are integral to a GVT's ability to improve innovation, productivity, and efficiency. The field of GVT management and intercultural communications is impacted by training in cross-cultural intelligence, which, when implemented, could enable GVTs to improve knowledge sharing leading to innovation and sustained competitive advantage.

**Implications for Social Change**

The implications for positive social change could arise from business leaders using cultural intelligence strategies to improve trust and communication among GVT

members. Implemented cultural intelligence strategies could enable leaders and GVT members to improve productivity and efficiency within the organization and enhance the leaders and GVT members' ability to sustain or advance their positions within the organization. Improvements to productivity could also increase the company's profitability, allowing the company, leaders, and GVT members more opportunities to give back to their local communities and economies. The implications for positive social change include the potential to improve team members' cultural intelligence strategies to improve trust and communication, improving investments in innovation, economic reinvestment in local communities through employee investment, improving education systems, and creating jobs.

## A Review of the Professional and Academic Literature

### Purpose of the Literature Review

The purpose of this qualitative multiple case study was to explore cultural intelligence strategies that GVT leaders use to improve trust and communication among GVT members. The foundation of the literature review was to explore the research gap in cultural intelligence strategies among GVTs. GVTs have continued to grow over the past decade by introducing multi-cross-platform technologies that enable team members to work remotely from various locations. This literature review includes analyses and syntheses on SET, cultural intelligence, technology, cross-cultural competencies, trust, communication, and productivity and efficiency implications of information sharing strategies to improve employee trust and communication within GVTs. This literature review discusses the potential research areas for future study. I included peer-reviewed

journals and compared results documented in the studies. The research studies provided a context to the competency challenges organizations face in virtual teams. I synthesized varying research studies to correlate the gaps in information sharing strategies.

**Literature Review Search Strategy and Outline**

The primary sources for the literature review included peer-reviewed journal articles and professional websites. I accessed the articles through Walden University search engines: EBSCOhost and ProQuest Central. Extensive database searches using single keywords and phrases including *cross-cultural competencies, cultural intelligence, virtual teams, communication technology, virtual team management, social exchange theory, global virtual teams* and *trust*. I used variations on search terms such as *multinational teams, international teams, multi-cultural distributed teams, cultural intelligence, cross-cultural communication,* and *diversity training* to provide additional avenues for locating literature. I used 80 peer-reviewed articles in the literature review section, 85% written between 2018 and 2022.

The literature review encompasses seven main themes: (a) SET, (b) cultural intelligence, (c) cross-cultural competencies, (d) GVT utilization of technology to improve trust and communication, (e) trust within GVTs, (f) communication among GVTs, and (g) productivity and efficiency. Before synthesizing the literature, I organized the literature by subtopic.

**Social Exchange Theory (SET)**

Theorists have tried to understand the value of business interactions to improve productivity and efficiency through varying theories. For example, Davlembayeva et al.

(2021) found the equity theory focused on the fairness of relationships and the need for

equality within the relationship to be effective in business, whereas, Gersel and Johnsen

(2020) suggested the rational theory focused on individual contributors on teams using

logical reasoning to drive their personal goals over team goals. However, Homans (1958)

derived the SET from constructs within economics, sociology, and psychology to

understand the costs and benefits of relationships within economic exchanges, which rely

on the exchange of intangible currency, such as rewards and support, and helps leaders

understand employee intention regarding trust, communication, and productivity. In

varying studies, researchers have used the SET to understand trust development amidst

team and individual goals and the behaviors that impact team productivity and efficiency

(Lawler & Thye, 1999; Moilanen & Ikäheimo, 2019; Wei et al., 2019).

Theorists studying sharing behaviors often use the SET to understand the

relationship development through trust and communication to improve team productivity

and efficiency. Thibaut and Kelley (1959) identified social exchange as a relationship

between individuals who exhibit behaviors of shared information through repeated

communication. Moilanen and Ikäheimo (2019) proposed that the SET is a set of

interactions between individuals based on the benefits of the relationship, and Lawler and

Thye (1999) correlated SET to a group of individuals who rely upon each other to

accomplish a set goal, whether as a team or individually. How the SET impacts team

behaviors through nonverbal agreements among team members continue to drive research

to help organizations improve productivity and efficiency.

Through the SET, improved team productivity and efficiency continue to be studied by researchers. The SET provides insight into the sharing behaviors of individuals and their ability to establish trust and team cohesiveness to improve work efficiencies (Wei et al., 2019). Blau (1964) defined how social exchanges differed from economic exchanges based on the stipulations of the obligations that were noncontractual but expected contending that social exchanges generate a sense of duty and trust. The value of the exchange resided with the receiver of the social exchange, unlike economic exchanges, which generate reciprocal interdependence. Homans (1958) identified the SET tenets as self-interest, interdependence, and reciprocity. Understanding the nuances of self-interest, interdependence, and reciprocity can improve team cohesiveness and productivity.

The benefits of social exchanges are improved cross-cultural relationships associated with the value of the exchanges. Pattnaik (2018) recognized some of the benefits as finances (bonuses, jobs, or raises), knowledge, experience, networks, and confidence. Al Halbusi et al. (2021) acknowledged that the benefits of the SET could be corrupted by the social behaviors of leaders or employees, which can negatively impact knowledge sharing and trust. Hou and Zhang (2021) argued that the SET benefits are weighed based on an individual's psychological ownership and commitment to the team. Hou and Zhang (2021) found that increased manager involvement in employee self-esteem and network support can minimize social loafing and improve psychological ownership and commitment, which increases the benefits of the SET. Hu et al. (2020) noted cultural intelligence strategies improved the SET through learned social exchanges.

It is beneficial for organizations to understand the implications of self-perception and feedback on teams to ensure job satisfaction and improve team trust and communication. Understanding the impact trust and self-identification have on team productivity and efficiency can improve virtual teams' growth and collaborative measures.

Social exchanges come from two or more individuals with a like-minded goal, such as co-owners, managers to senior leadership, and managers to team members. Mora Cortez and Johnston (2020) found the SET to help leaders improve virtual team deployment and decision-making processes and reduce the stress associated with digital transformation. Huertas-Valdivia et al. (2019) identified the need for leaders to be more employee-focused, as leaders are responsible for employee engagement in the success of organizational goals. Moilanen and Ikäheimo (2019) argued leadership generated leader dominance, negatively impacting team communication, trust, and team efficiency. Additionally, authority within social exchanges can negatively impact the ability of groups to create cross-cultural competencies that improve equality and trust among team members.

Within social exchanges, trust is required to generate improved productivity and efficiency. The SET associates increased trust within teams with set expectations, increasing the value and strength of knowledge sharing (Peñarroja et al., 2015; Romeike et al., 2016). Peñarroja et al. (2015) identified how SET elements could be applied within virtual teams to improve trust, influencing team commitment, communication, and conflict reduction. Wei et al. (2019) employed the SET to identify the improved trust and knowledge sharing of team members based on the expectations of extrinsic rewards,

reciprocity, or the enjoyment in helping others. Trust development within teams can be aligned within SET elements as team members improve communication and commitment to their team goals and expectations.

Researchers have employed SET in various industries and fields to understand cultural intelligence constructs that impact productivity and employees' ability to complete tasks associated with engagement. Trust and communication are improved benefits of the SET; however, the SET's elements are self-interest, interdependence, and reciprocity. SET outlines the self-interest, altruistic, and reciprocal behaviors which impact a team's ability to build trust, increase communication, and improve productivity and efficiency (Muldoon et al., 2018). Understanding how self-interest and altruistic behaviors are exerted through reciprocal expectations and reward/punishment behaviors helps leaders identify strategies that can help teams improve productivity and efficiencies within virtual teams. Homans (1958) surmised that the impact of economic, social exchanges, and improved team members' behaviors increase when rewards of self-interest, interdependence, or reciprocity are defined within the relationship. Leaders can utilize these studies to improve virtual team collaboration to impact team efficiency and productivity.

The SET relies upon trust between parties based on self-interest and mutual dependence. However, when power and perceived relationships exist within teams, trust decreases within social exchanges (Lawler & Thye, 1999; Meira & Hancer, 2021; Xu et al., 2019). Understanding the impact of power and perception on trust can help

organizations understand competencies and strategies that mitigate behaviors that can decrease productivity.

The SET can impact team trust and communication based on the quality of social exchanges. Theorists, however, infer that the SET lacks the breadth of utility and precision for researchers due to the cost of an array of applicability (Cropanzano et al., 2017). Cropanzano et al. recognized the SET to lack defined constructs, generate generic behavioral assumptions, and limit the researcher in their ability to make valuable predictions. Additionally, the SET is conducted in a unidimensional framework, which further impacts the bipolarity of the SET. Cropanzano et al. considered the review of the SET use by researchers in a two-dimensional space. They recommended that researchers believe hedonic value and activity equally to help identify more valuable predictions. Researchers should understand the limitations of the SET to ensure mitigated bias and assumptions within their analysis to improve their research quality.

The tenets of the SET are self-interest, interdependence, and reciprocity. Homans (1958) SET improved behaviors within GVTs, which impacted team productivity and efficiency. Leaders can utilize the SET tenets to improve virtual team collaboration to impact team efficiency and productivity.

The SET tenet of self-interest focuses on the set expectation a team member perceives as their goal within the social exchange. Lawler and Thye (1999) identified self-interest as the goals and expectations set by an individual that cannot be completed without aid. Muldoon et al. (2018) speculated Homans's work focused more on altruism rather than self-interest in terms of social exchanges, as it establishes trust within the

exchange. Romeike et al. (2016) found that the individuals who perceived themselves as superior to their teammates distanced themselves from the team by communicating less and performing less and had less job satisfaction than their counterparts who saw themselves as equal. However, team members still worked to maintain working relationships with them. Romeike et al. (2016) posited that self-interest in job satisfaction was the social exchange's perceived outcome. Self-interest is the desired goal of the relationship, but the goal is not obtainable without other individuals; thus, contributing to the interdependence of other team members.

Interdependence is a tenant that focuses on acknowledging a team member's need for another team member to accomplish their set goal. Lawler and Thye (1999) identified interdependence as the need for help from others to accomplish a set task or goal. Interdependence, within social exchanges, depends upon the ability of individuals to continue learning and sharing their knowledge base with members of the social exchange to accomplish a team or organizational goal (Moilanen & Ikäheimo, 2019). Trust, within interdependence, improves the likelihood of team members engaging and sharing information with team members (Romeike et al., 2016). As trust develops within teams, sharing and communication improve, improving efficiencies to obtain a team's set goal based on team members' interdependence.

Interdependence impacts GVT's productivity and efficiency. Romeike et al. (2016) suggested that interdependence exists within virtual teams due to the need to interact and rely upon team members. Huang et al. (2018) proposed interdependence positively impacted extroversion, which allowed individuals to build trust and

communication with other individuals. Strik et al. (2021) acknowledged that negative

interdependence behaviors negatively impact knowledge sharing, while positive

interdependence behaviors increase team knowledge sharing. Communication and trust

deficiencies between team members of distributed teams take longer to establish trust

relationships and knowledge sharing; however, Wei et al. (2019) identified trust, extrinsic

rewards, and self-values as an incentive to share knowledge. Peñarroja et al. (2015)

determined trust establishment was strongly related to team exchanges of information and

efficiency. Relationship exchanges surmise an interdependence between individuals to

achieve defined goals and expectations, which are improved through reciprocity (Blau,

1964). Understanding the impact behaviors have on team interdependence and team

members' ability to establish trust and communication can affect a GVT's ability to

obtain team goals.

The SET tenet of reciprocity focuses on the mutual benefit of the relationship

within the social exchange. Reciprocity is the end goal of individuals who establish a

relationship with the mutual benefit of positive interactions (Bull, 2020). Reciprocity

results from self-interest and interdependence, with benefits such as knowledge sharing,

which improves team productivity and efficiency (Moilanen & Ikäheimo, 2019; Sungu et

al., 2019). Meira and Hancer (2020) noted organizational reciprocity as organizations'

implemented strategies to improve employee productivity and effectiveness and generate

a mutual benefit. The mutual benefit of the social exchange can be economical or social,

with the rewards being extrinsic or intrinsic. Extrinsic rewards are economic exchanges,

such as bonuses or financial backing (Wei et al., 2019). Wei et al. noted in terms of

reciprocity that the rewards are social and intrinsic, and intrinsic rewards are categorized as social exchanges between individuals, which register perceptions and images of teammates. Wei et al. found intrinsic rewards between team members significantly impact sharing intention. Reciprocity culminates from each team member's self-interest and the interdependence of other team members, which increases the need for knowledge sharing, communication, and trust development.

The effects of negative reciprocity can impact trust and communication. Shaw et al. (2019) perceived negative reciprocity as fair within groups over positive reciprocity, which was perceived as favoritism. Wei et al. (2019) found reciprocity did not have an increased impact on an individual's desire to share information, while trust did increase an individual's appetite. Chia et al. (2021) suggested reciprocity as a primary factor for the success of experience and knowledge sharing. Individuals perceive giving as a more substantial value than the expectation of reward and disregard self-interest and altruistic perspectives as variables for incentive in virtual reality social exchanges.

Reciprocity is dependent upon trust. Wei et al. (2019) and Blau (1964) acknowledged that trust must exist for reciprocity to exist between individuals. Pattnaik (2018) suggested the vital role reciprocity plays in social exchanges and the relationship between employees. Wei et al. identified reciprocity as the most significant reason individuals engage in social exchange but found a meaningful relationship between trust and the intention to share capital can negatively impact reciprocity. Researchers can utilize the SET to understand team member exchanges, within GVTs, based on the increased need for communication and trust, which is affected by self-interest,

interdependence, and reciprocity of other team members. GVT leaders who understand the impact of SET and its tenets on team communication and trust can improve their team productivity and efficiency through enhanced cultural intelligence training. Team members need to learn and improve their cultural intelligence to improve social exchanges. Improved cultural intelligence can improve trust and communication, impacting team productivity and efficiency.

**Cultural Intelligence**

Cultural intelligence is learned and improved through education, training, interactions with different cultures, or internships in foreign countries. Black and Mendenhall (1990) identified a relationship between cultural intelligence training and an individual's ability to adjust behaviors accordingly. Cultural intelligence improves an individual's ability to lower cultural barriers and effectively manage cultural differences (Naushad & Majid, 2020). Black and Mendenhall surmised cultural intelligence takes place when individuals seek to understand new cultures and accept the differences and advantages of cultural differences within situations. Within organizations, understanding the impact improved cultural intelligence can have on global relationships, trust, communication, and team productivity and efficiency can increase the need for organizations and education systems to develop cultural intelligence training within their programs.

Organizations have used cultural intelligence training to improve behaviors within GVTs. Shaik and Makhecha (2019) deduced that the higher the cultural intelligence of GVT members, the more likely the team members overcame barriers generated by GVTs.

Zakaria and Yusof (2020) found a need for organizations to utilize cultural intelligence strategies to improve cross-cultural competencies among GVTs. Azevedo and Shanes' (2019) and Presbitero and Toledano's (2018) studies showed significant differences in participants following cultural intelligence training and recommended improving training for professionals. Strategies for enhancing behaviors are greater among multicultural relationships than in the domestic context, which makes the need for continued training among team members, as initial training is not sufficient (Black & Mendenhall, 1990). Organizations that understand the benefits of cultural intelligence training among GVTs can improve team members' ability to overcome cultural barriers with other team members.

Researchers have broken cultural intelligence into multiple methodologies and training to improve GVT members' behaviors. Landis and Brislin (1983) identified five methods for improving cultural intelligence: cognitive training, attributional training, experiential training, self-awareness training, and behavioral training. Cognitive training focuses on basic levels of information sharing through videos, lectures, and reading materials (Black & Mendenhall, 1990). Earley and Ang (2003) identified the inability of cognitive training to yield effective cultural behaviors, which impact the ability of individuals to function efficiently within diverse environments. Attributional training is concerned with cultural relativity and is an assimilation methodology that puts individuals in a simulated environment to generate interactions among individuals within a specific region (Earley & Ang, 2003). Attributional training is practical due to the ability of individuals to learn and identify basic cultural behaviors and scripts; however, it

is limited to the specific learned culture (Earley & Ang, 2003). Experiential training focuses on role-playing and real-life simulations to provide the individual with "on-the-job" training (Earley & Ang, 2003). Earley and Ang noted individuals who undergo experiential training have increased cultural intelligence adaptability, flexibility, and behavioral resilience; however, the training is emotionally demanding on participants. Knowledge, mindfulness, and behavior are three constructs that enable individuals and organizations to interact cross-culturally successfully. The motivation and strategies needed for improving behaviors impact the effective execution of cultural intelligence.

Organizations use cultural intelligence strategies to improve team efficiency and productivity behaviors. Earley and Ang (2003) identified four constructs of cultural intelligence: metacognitive, cognitive, motivational, and behavioral cultural intelligence. Improved cultural intelligence strategies have improved how students and professionals engage with other cultures and improved cognitive, metacognitive, motivational, and behavioral cultural intelligence (Abdien & Jacob, 2019). Naushad and Majid (2020) found that the dimensions of cultural intelligence impact team effectiveness, with cultural skill being a more significant predictor of team effectiveness. Additionally, cultural intelligence is improved through increased communication and interactions with different cultures and generates the need for diversity among teams and students to continuously improve cultural intelligence (Shaik & Makhecha, 2019). Through cultural intelligence strategies, organizations can improve the metacognitive, cognitive, motivational, and behavioral intelligence skills of GVTs to enhance team efficiency and productivity behaviors.

Researchers have found cultural intelligence skills to improve team performance. Lorenz et al. (2020) found cultural intelligence to generate opportunism and ethical relativism based on situational interests within multicultural teams, which negatively affects teams and organizations. Iskhakova (2018) deduced cultural intelligence to impact multicultural team adjustment positively but posited that cultural exposure had a more significant impact on multicultural performance. Presbitero (2020) found cultural intelligence to be malleable, capable of being a defined competency that improves GVT members' productivity and efficiency. Established cultural intelligence skills can improve levels of trust and communication, which impact daily interactions with growing diverse economies and enhance trust among team members.

In association with cultural intelligence, cognitive intelligence is a skill that can improve team behaviors based on specific knowledge. Individuals with cognitive cultural intelligence have content-specific knowledge or cultural knowledge of cultures within and outside of their own culture due to a universal understanding of cultural similarities and differences (Presbitero, 2020). Cognitive cultural intelligence improves the performance and effectiveness of team members, as anxiety is reduced in team members who have a baseline understanding of the cultures they are interacting with (Presbitero, 2020). Shaik and Makhecha (2019) found that employees who express higher cognitive cultural intelligence can improve communication among team members to reduce conflict and improve understanding and relationships.

Cognitive cultural intelligence is also known as knowledge, which consists of an individual's ability to understand social norms within varying cultures and practices

(Earley & Ang, 2003). Knowledge is the foundation of an individual or organization's awareness of cultural intelligence and the ability to understand others openly (Earley & Ang, 2003). Lorenz et al. (2020) found cognitive cultural intelligence to develop opportunism and ethical relativism within multicultural environments, leading to opposing influences on team members. Knowledge improves and minimizes cultural effects on behaviors, impacting cultural intelligence and cultural competencies. Knowledge, within cognitive cultural intelligence, consists of learned skills, such as foreign language skills, which can improve an individual's effectiveness on a multicultural team (Presbitero, 2020). Organizations who understand the benefits of cognitive intelligence strategies to enhance team communication can improve team productivity and efficiency behaviors.

Researchers have identified metacognitive cultural intelligence as the skill that improves base knowledge. Presbitero (2020) identified metacognitive cultural intelligence as cultural awareness in multicultural situations. Individuals with metacognitive cultural intelligence can control their conscious behavior and capabilities within multicultural situations and adjust accordingly (Presbitero, 2020). Naushad and Majid (2020) discerned metacognitive cultural intelligence as a strategy or process through which individuals acquire behaviors and capabilities.

Metacognitive cultural intelligence enables individuals to develop strategies that improve awareness and coping within cultural challenges (Earley & Ang, 2003). Lorenz et al. (2020) deduced metacognitive intelligence to have a symbiotic relationship with cognitive intelligence, as awareness improves through cognitive intelligence. Rockstuhl

and van Dyne (2018) found that cognitive and metacognitive cultural intelligence positively improve decision-making within multicultural teams. However, Lorenz et al. (2020) argued that cognitive and metacognitive cultural intelligence is negatively impacted by ethical relativism when opportunistic behaviors are present. Naushad and Majid (2020) ascertained a team's effectiveness increased based on the level of metacognitive cultural intelligence within the team. Organizations can utilize metacognitive intelligence training to improve team cohesiveness and decision-making behaviors.

Motivational cultural intelligence skills can increase GVT members' ability to navigate multicultural situations. Motivational cultural intelligence focuses on an individual's capability to focus and comprehend the appropriate responses within multicultural scenarios (Earley & Ang, 2003). Presbitero (2020) identified motivational cultural intelligence to drive individuals in challenging multicultural situations. Naushad and Majid (2020) identified motivational cultural intelligence as individuals' energy towards cultural knowledge. Motivational cultural intelligence impacts an individual's or team's ability to overcome gaps within cultural norms.

Earley and Ang (2003) identified motivational cultural intelligence as the individual's drive to continue learning and expanding on development and obtaining new knowledge on cultures to improve constructs and systems. Within an organizational construct, motivational cultural intelligence exists when the individual or team goals and incentives are aligned to drive productivity and efficiency, as individuals or teams with high motivational cultural intelligence desire to accomplish goals or tasks (Presbitero,

2020). Naushad and Majid (2020) found that team members with higher motivational intelligence can positively impact motivational behaviors within other team members. Organizational expectations founded within strategies, strategic planning, and training can improve motivational cultural intelligence within team members, which drives improved productivity and efficiency.

Behavior cultural intelligence increases an individual's flexibility within multicultural situations. Individuals with behavioral cultural intelligence can adapt readily to multicultural situations (Presbitero, 2020). Behavioral cultural intelligence occurs when an individual adjusts within varying social conditions. An individual's adjustments are both verbal and non-verbal, such as language adaptation and body language (Presbitero, 2020). Flexibility in behaviors enables individuals to adapt and increase team communication, trust, and efficiency.

Earley and Ang (2003) surmised behavioral cultural intelligence as the individual's ability to enact cognitive, metacognitive, and motivational cultural intelligence behaviors within a cultural situation. At the organizational level, behavioral cultural intelligence is defined by an organization's ability to harness and improve employee knowledge and flexibility within varying cultural settings through implemented processes and strategies (Presbitero, 2020). Naushad and Majid (2020) and Presbitero deduced that the level of behavioral cultural intelligence within teams impacts the effectiveness of the teams. Behavioral cultural intelligence is the summation of behaviors and skills learned within cognitive, metacognitive, and motivational cultural intelligence. Understanding the intricacies of cultural intelligence and the ability of cultural

intelligence skills learned through technology and training can improve the productivity and effectiveness of GVTs and organizations (Bernardo & Presbitero, 2018; Naushad & Majid, 2020). GVT leaders and organizations can utilize cultural intelligence skills to improve GVT's cross-cultural competencies, which will enhance GVT's productivity and efficiency.

**Cross-Cultural Competencies**

As globalization increases in the business world, cultural intelligence strategies applied to improve cross-cultural competencies are studied to understand the impact and the necessity of such a strategy to improve employee and client relationships. Cross-cultural competencies are behaviors and perceptions that enable individuals to work or adapt within cross-cultural scenarios (Kotze & Massyn, 2019). The benefits of cross-cultural competencies are an increased competitive advantage through improved problem solving, improved communication, and increased motivation, which minimizes intercultural barriers and improves team productivity and efficiency. As globalization increases, cross-cultural competencies become more vital to organizational health (Zakaria & Yusof, 2020). Zakaria and Yusof (2020) identified a critical need for organizations to implement strategies to improve cross-cultural competencies, which aid in developing individual and organizational health. Pudikova et al. (2019) noted a need for improved communication forums to enhance employee levels of cultural intelligence, as 92% of students surveyed did not feel that they could learn cross-cultural competencies in a school environment. Cross-cultural competencies have improved productivity across global teams through strategies established by organizations

(Pudikova et al., 2019). Cross-cultural competencies improve trust development and communication that impact work environments (Naushad & Majid, 2020). Organizations and leaders understanding the implications of cultural intelligence strategies in intercultural environments can improve organizations and their leaderships' ability to improve cross-cultural competencies amongst growing GVTs.

Research has found the benefits of cross-cultural competencies in improving team behaviors. Naushad and Majid (2020) surmised that improved cross-cultural competencies increase competitive advantage. Cross-cultural competencies improve an individual's ability to engage in multicultural scenarios and impact organizational trust and communication, impacting productivity, efficiency, and innovation (Earley & Ang, 2003). An organization's ability to adapt to varying cultural constructs through cultural intelligence performance, strategies, and processes improves the organization's success and minimizes behaviors that hinder productivity (Presbitero, 2020). The ability of a leader to demonstrate cross-cultural competence is a noted critical element for today's leaders due to the growing cultural diversity (Naushad & Majid, 2020). Organizations that understand the benefits of improved cross-cultural competencies can improve their team productivity and efficiencies.

GVT behaviors improve through increased cross-cultural competencies. Lorenz et al. (2020) acknowledged that organizations could not achieve cross-cultural competence with tensions that contradict the value and benefits of cross-cultural competence. Naushad and Majid (2020) noted the impact cross-cultural competence strategies had on improving emotion regulation, optimism, and perspective-taking among participants,

which improved the ability of participants to establish relationships and reduce conflict within multicultural scenarios. Cross-cultural competencies consist of the adaptability of learned cultural intelligence behaviors within a  multicultural environment, impacting trust and communication within GVTs (Naushad & Majid, 2020). Naushad and Majid surmised the improved ability of leaders with higher cultural intelligence skills to understand the dynamics of their culturally diverse teams and improve communication. Cross-cultural competencies can reduce team conflicts, increase adaptability, and improve trust and communication.

Organizational leaders who have implemented these strategies have seen improvements in team members' ability to problem solve and communicate effectively with individuals and improve team dynamics. Zakaria and Yusof (2020) deduced that designed strategies could help improve students' foundation for cross-cultural competencies before going into the workforce. Wang et al. (2019) reasoned that organizations utilize cultural intelligence training to reduce cultural differences and improve team members' ability among multicultural teams, which impacts trust among team members. Trust and communication among GVTs are learned and enhanced through training conducted via technologies.

**GVT Utilization of Technology to Improve Trust and Communication**

Organizations use varying technology media to improve team trust and communication. Organizations utilize technology to improve training strategies and communication among their employee base through various platforms (Pudikova et al., 2019; Sheridan et al., 2018). Organizational leaders recognize virtual infrastructures'

dependency on technologies to collaborate and ensure expectations and employee

productivity levels are met (Shaik & Makhecha, 2019). Some of the platforms employed

are online conferencing programs (Google Meet, Microsoft Teams, Amazon Chime, or

Zoom), virtual reality (Oculus or Hololens), and communication platforms (Dropbox,

Google Drive, or Slack).

Organizations use information technologies (ITs) to improve communication and

increase knowledge sharing. ITs can increase communication and knowledge sharing by

utilizing multiple IT sources (Rahma et al., 2020). Organizational alignment within teams

and internal IT can improve team productivity and effectiveness (Setyadi, 2019). Wei et

al. (2019) posited knowledge sharing benefited trust-building and improved

communication strategies. Jegorova and Kuznecova (2020) deduced organizational IT to

hurt teams due to its function under the fast-paced needs of complex teams. The

technology employed among virtual teams to support communication and knowledge

sharing are aids such as e-mail, team chat groups, discussion boards, and virtual software.

Technology continues to advance the way organizations interact and train their

employees. Organizations utilize technology to improve cross-cultural competencies and

interactions among their employee base through various platforms (Pudikova et al., 2019;

Sheridan et al., 2018). An and Guerlain (2020) found increased utilization of virtual

reality through serious games to improve cross-cultural competencies. As previously

mentioned, some of the platforms utilized for virtual reality are Oculus or Hololens by

Microsoft. Virtual reality is an immersive technology that allows intercultural

participants to interact across various platforms, such as conferencing or document

sharing through avatars in simulation (Fagernäs et al., 2021). Virtual reality allows for real-time data sharing and decision-making across GVTs.

Organizations can use various technologies to increase trust and communication. Pudikova et al. (2019) identified the need for additional external forums to acquire the skills needed to conduct proper communication levels. The need for organizations to invest in job resources aid in improving employees' cognitive, metacognitive, and behavioral cultural intelligence that impact productivity and support in helping obtain organizational goals (Shaik & Makhecha, 2019). Information and communication technologies (ICTs) and the Internet of Things (IoTs) are platforms organizations utilize in online conferencing, instant messaging, and virtual spaces to help improve cultural intelligence, which positively impacts trust, communication, team productivity, and team efficiency.

Team behaviors can improve through the use of technology. Technology brings individuals together to form teams, reviewing and collaborating on cognitive tasks (Peñarroja et al., 2015). Information technologies help organizations share accurate and real-time data with diverse team members and groups through digitalization and analytics (Jegorova & Kuznecova, 2020). Various groups of individuals can share ideas, information, and strategies to make informed decisions in real-time using ICTs. Virtual teams depend upon ICTs to engage in team building, the establishment of trust, communication, coordination, and collaboration (Petter et al., 2019). ICT platforms enable ongoing communication to reduce adverse behaviors among team members that traditionally exist among heterogeneous teams, provide value chains, and increase user

networks (Petter et al., 2019; Stone et al., 2020). Sanchez and Bayona-Ore (2020) surmised the positive impact ICTs have on organizational performance through improved processes and alignment within the business. Understanding how ICTs enable leaders and team members to establish trust and align goals will allow organizations to compete in dynamic environments and improve team effectiveness (Petter et al., 2019). Organizations can improve team productivity and efficiency behaviors and increase the values of GVTs through the use of ICTs.

Organizations use ICTs to improve GVT engagement and increase training among team members. ICTs generate virtual learning environments for teams to engage in, which improves learning and engagement (Peñarroja et al., 2015). Yusof et al. (2017) identified the benefits of trust development among virtual teams when communications tools properly align with team dynamics. The utilization of cloud storage, video conferencing tools, and virtual management improves GVT communication and trust establishment. Sheridan et al. (2018) determined that the utilization of gaming through virtual reality produced a more high-quality training methodology than traditional means. Technology companies continue to develop headsets, such as the Hololens and Oculus, to help organizations improve virtual reality training and team development.

Some researchers have found ICTs to be ineffective in team development. Greenberg et al. (2007) inferred ICT utilization does not ensure knowledge sharing or the establishment of trust and reciprocity. Though technology is applied to help improve communication through video conferencing, emotion and body language are missing, hindering obtaining or maintaining trust, which requires improved communication

strategies (Greenberg et al., 2007). Iskhakova (2018) surmised that cultural intelligence adaptation increased through cultural exposure, whether geographical, environmental, or inherited, compared to training or education. Butavicius et al. (2020) inferred a lack of standardization models, project management principles, and technological applications among virtual teams can impact clarity, direction, and productivity. Stone et al. (2020) argued that the ICT industry had increased adaptability within ever-changing business models to enable enterprises to improve communications among GVTs. Due to ever-changing technology, some researchers do not find ICTs to provide enhanced benefits to GVTs.

Organizations utilize multiple intelligent technologies, which fall under the umbrella of the IoT, to share information, outline tasks and roles, and collaborate in real-time. Yusof et al. (2017) and Zakaria & Yusof (2020) found the utilization of IoT to improve swift trust among team members, which impacted communication and team efficiencies. Technology among GVTs can improve collaboration, communication, and trust among team members, impacting efficiency and productivity (Yusof et al., 2017). Virtual teams depend upon technology and cultural intelligence to improve team effectiveness and communication (Presbitero, 2020; Shaik & Makhecha, 2019). Organizations can use IoTs to improve GVT collaborations, which increase trust and communication.

IoTs generate concerns among some researchers due to common technical issues. Yusof et al. (2017) identified negative aspects of IoT, including cyber-attacks and technical difficulties, such as lag time, that could decrease team productivity and trust.

IoTs have been susceptible to cyber-attacks; however, identifying proper technologies and cloud services can help minimize risk (Butavicius et al., 2020). Communication technologies impact global software development processes and methodologies to improve communication and break down cultural barriers, which improves virtual team productivity.

GVTs increasingly use technology to improve team productivity and efficiency behaviors, which has generated the need for technology to improve continuously. Brown et al. (2020) posited a negative relationship between behaviors of homogenous teams and recommended improved technology among virtual teams to improve team productivity and efficiencies. Utilizing these frameworks has helped improve virtual team trust, communication, and cultural intelligence skills through the utilization of technology (Brown et al., 2020). These frameworks have additionally enabled leaders to improve team member productivity, collaboration, knowledge sharing, and alignment among virtual teams.

Understanding the value of technology and the proper context of technology among GVTs is vital to team goals and organizational expectations. Leaders can utilize technology advancements to improve collaboration and team trust, and communication. Additionally, leaders can use the findings of the noted studies above to enhance processes within GVTs to improve productivity and efficiency.

ICTs and IoTs have helped GVTs and organizations improve virtual team cross-cultural competencies (trust and communication) and cultural intelligence skills (Brown et al., 2020). These frameworks have also enabled leaders to improve team member

productivity and efficiency through knowledge sharing and collaboration among virtual

teams. Understanding the value of technology and the proper context of technology

among GVTs is vital to team goals and organizational expectations. Leaders can utilize

studies on technology advancements to improve trust and communication among GVTs.

**Trust Within GVTs**

GVTs rely on trust to improve team productivity and efficiency. Trust is an

integral part of virtual teams and fundamental to sustaining communication, productivity,

and efficiency (Shen et al., 2020). Shaik and Makhecha (2019) found trust generated

through video conferencing and information communication. Trust generates sustained

productivity and behaviors among teams with a history of trust and positive behaviors;

however, negative performance and negative performance can negatively impact the

team's performance levels (Jaakson et al., 2019). Additionally, trust among team

members improves when decisions are more repetitive and routine than one-off or un-

routine decisions, which results in behaviors categorized as distrust behaviors and

reduces communication among teams and team members (Jaakson et al., 2019). Jaakson

et al. identified the level of trust in correlation to history and functionality. Jaakson et al.

additionally determined that varying levels of trust correlate to the productivity of the

team and the types of behaviors displayed by the teams. Organizations that implement

training to improve trust among the team can improve team behaviors.

Social exchanges enable employees to form trust within relationships, which

results in improved productivity and efficiency among team members. Raja et al. (2018)

found that unity among the employees' goals generated empowerment to collaborate and

influence decisions. Barker (2020) surmised leaders, who changed their behaviors, were able to improve the behaviors of future leaders among their staff and improve relationships within their teams following improved communication levels. Improved communication levels were beneficial in improving relationships, which improved trust among the team members and their leaders to improve their confidence within themselves.

Researchers have studied virtual environments to understand the impact of virtual team trust development. Petter et al.'s (2019) study, which focused on the impact trust had on virtual team interactions through the study of Massively Multiplayer Online Role-Playing Game (MMORPG) team members, identified a strong relationship between shared knowledge and trust. Additionally, they found an association between trust and contribution to the team, which improves communication and team coordination. Peñarroja et al. (2015) acknowledged the significant impact trust had on team feedback and learning within virtual environments. Romeike et al. (2016) additionally posited the benefit of feedback in newly established virtual teams, based on the initial development of swift trust, which relies upon communication and feedback to develop trust. Swift trust is the foundation of trust establishment by allowing for information sharing among virtual teams.

Virtual teams use swift trust to develop trust among team members. Swift trust is the temporary trust given to newly established groups to improve communication and information sharing while genuine trust develops (Zakaria & Yusof, 2020). However, Zakaria and Yusof acknowledged swift trust to continue growing as the team project

develops. Swift trust develops through the knowledge shared from external parties, role alignment, and personal rule-based elements (Greenberg, 2007). Jaakson et al. (2019) utilized the swift trust theory to develop hypotheses to correlate trust and team performance levels; and noted swift trust to be vital to trust ranks among teams and is adjusted based on project necessity and frequency (Jaakson et al., 2019). Virtual teams rely on developing swift trust to establish reciprocity and improve team productivity and efficiency.

Team development of swift trust can also generate swift distrust. Schiffling et al. (2020) found that both swift trust and swift distrust exist simultaneously within teams. Swift distrust develops between individuals based on data provided, suspicion, and first impressions (Schiffling et al., 2020). Team building exercises introduced at the establishment of the team have been designed to help improve cognitive cultural intelligence and positively affect trust, which aids in developing swift trust through communication on personal asset contributions and personal/social elements (Greenberg, 2007). Organizations can mitigate swift distrust through improved cognitive cultural intelligence training.

ICT and IoT improve GVT communication and collaborations, as platforms aid in developing swift trust among team members. ICTs allow individuals to categorize team members' behaviors and characteristics to form swift trust (Yusof et al., 2017). The timeliness of swift trust is improved as ICT and IoT enhance the team's ability to communicate and develop a sense of rapport. Yusof et al. (2017) and Zakaria and Yusof (2020) noted the improvement of swift trust through the redundant utilization of IoTs

when organizations employ good communication platforms to facilitate interconnectedness, efficiency, and effectiveness. GVT communication and collaborations improve through the use of ICT and IoT innovations.

Multiple studies have found cultural intelligence strategies as a method to improve cross-cultural competencies, such as trust; however, Xu et al. (2019) found feedback to be conducive to biases, which can stem from either minimal or high-frequency interactions and not on performance. Bishop et al. (2021) surmised that adversarial manipulation negatively impacts trust development processes. Additionally, personal relationships impact team members' feedback, which improves productivity, but bias or perceived bias negatively affects trust (Xu et al., 2019). Lawler and Thye (1999) inferred a positive correlation between teams' success and emotional exchanges that improve trust and communication within the normative and social formation. However, the utilization of shared emotion can hinder trust, as an individual's perceived power can use emotion as leverage, which decreases trust, communication, and team efficiency (Lawler and Thye, 1999). Cross-cultural competencies can improve trust and communication through improved cultural intelligence strategies, which will enhance GVT's productivity and efficiency (Barker, 2020). Organizations can help improve trust among GVTs by developing cross-cultural competencies, which can help remove bias or improve social exchanges.

The dyads of trust are ability, benevolence, and integrity. Each dyad can impact individuals' communication, productivity, and efficiency through varying levels of trust. Long (2021) deduced that the social exchange players perceive the dyads of trust as

tactical or authentic based on understanding the player's ability, benevolence, and integrity. Understanding the implications of the dyads of trust on GVTs and their interactions can help improve communication, productivity, and efficiency among teams and their team members.

The dyads of knowledge-based trust impact communication, productivity, and efficiency: ability, benevolence, and integrity, which develop over the time of a relationship as swift trust diminishes and results in the development of ability, benevolence, and integrity (Alarcon et al., 2018). As swift trust gives the trustor more robust control at the beginning of the relationship, the trustees increase their integrity and ability over time, which eventually circumvents the trust of the original trustor as knowledge-based trust evolves (Wang & Murnigham, 2017). Understanding the implications of trust within business relationships can impact the ability of employees to be effective within a team through communication and knowledge sharing.

Ability is a form of cognitive trust established through assessing a team member's performance, productivity, and efficiency (Greenberg et al., 2007). A team member's perceived performance ability is based on their knowledge, competence, and skills. Ability is identified as the task-related competencies that impact the transaction and improve trust by perceiving positive implications to the transaction (Alarcon et al., 2018). Long (2021) inferred that ability is not a factor in determining an individual's tactility or authenticity within a defined relationship; however, it is prevalent through benevolence or integrity. Conversely, Qin (2020) inferred ability has the most substantial impact on an

individual's intention. Understanding the implications of a team member's ability can aid in the improvement of trust; however, it does not necessarily aid in trust fulfillment.

Benevolence is a form of affected trust, which develops within reciprocal relationships where the referent or emotional behaviors, affections, and actions of individuals result in the personal care of the other individual (Greenberg et al., 2007). Benevolence results from the long-term knowledge-based trust, as swift trust dissolves. A team member establishes referent or emotional behaviors through a willingness to help, availability, sharing, openness, caring, and commitment (Greenberg et al., 2007). Lupoli et al. (2020) recognized benevolence as a sign of compassion, increasing an individual's trust in other team members. Wang and Murningham (2017) found benevolence enables teams to establish communication and knowledge sharing based on an individual's perceptions of a leader's behavior as it impacts trust; however, more significant implications of trust are based on the perceptions of a leader's integrity and benevolence, such as when a leader's punishment did not align with the action. Individuals are less likely to distinguish between integrity and benevolence when punishment is rendered inappropriately (Wang & Murnigham, 2017). Benevolence remains the primary factor in retaining trust within GVTs (Greenberg et al., 2007). GVTs develop benevolence over time and through reciprocity.

The dyad of integrity is vital to trust among team members. Within trust and likeability, integrity is a form of cognitive trust and enables employees to believe a leader's values align with their own (Greenberg et al., 2007; Wang & Murningham, 2017). A team member's values are internalized norms often based on honesty, equality,

and loyalty (Wang & Murningham, 2017). Integrity impacts trust by aligning everyone's defined intentions and expectations within the transaction (Alarcon et al., 2018; Qin, 2020). Integrity is the second factor that continues trust within GVTs over time (Greenberg et al., 2007). Leaders need to ensure that the strategies align with employee ethics and values to improve the ability to influence the employees' behavior, enhancing the integrity and trust of the employee's relationship with the organization.

Through improved cross-cultural competencies, increased trust within teams enables team members to become more inept to increase communication through knowledge sharing, team goals, and social work within the workplace. Understanding the implications of increased trust to improve communication can improve GVT's productivity and efficiency.

**Communication Within GVTs**

Cultural diversity among GVTs can harm productivity, efficiency, and the ability of teams to communicate and resolve conflict. Through established framework and cultural intelligence strategies, coordination and communication mitigate cultural differences and improve empathy, trust, productivity, and efficiency among virtual team members (Zakaria & Yusof, 2020). Jaakson et al. (2019) correlated team communication and trust to improved performance. Intercultural relations can impact communication, making improved communication strategies vital to the success of GVTs (Zhu, 2020). Organizations use communication strategies to increase team trust, productivity, and efficiency.

Organizations can improve communication among multicultural teams through training and increased communication frequencies. Effective communication improves through socialization and cultural intelligence strategies that help mitigate the polarization of cultures and team members (Litvinova et al., 2021). Shaik and Makhecha (2019) posited that improved and frequent communication among GVTs could help employees understand organizational expectations and acknowledge the benefit of increased communication provided as a job resource. McLarnon et al. (2019) correlated improved communication frequencies with increased productivity. Additionally, Nordbäck & Espinosa (2019) surmised the relationship between coordination and communication of leadership and their impact on a virtual team's productivity and efficiency, and the benefit of leadership being imbedded in cross-cultural competencies and incorporating the learned behaviors into the organization's own culture. Consistent communication among GVTs improves reciprocity among team members, which impacts knowledge-sharing and team alignment.

Communication, through technology, can improve team behaviors. Enhanced communication, learned through online training, social platforms, forums, or apps, increases an individual's efficiency and productivity within group exchanges (Pudikova et al., 2019; Puyod & Charoensukmongkol, 2019). Communication can improve individual motivational intelligence to learn behaviors that impact business interactions among virtual teams or relations. Additional learning options can help individuals improve their cultural intelligence, such as online forums, conferences, and social media (Pudikova et al., 2019). Puyod and Charoensukmongkol (2019) found a more significant

cultural intelligence impact on newer employees than those with more experience, as they showed more motivation to learn. Puyod and Charoensukmongkol (2019) recommended improved competence strategies for teams to improve communication skills, impacting productivity and efficiency. Zhu (2020) found that continued real-time interaction improved communication and diminished barriers to exchanges. Organizations can use technology to enhance GVT interactions through communication and enhance the cultural intelligence of the team members.

Communication among teams is essential to the success of an organization's goals or mission. Andy-Wali and Wali (2018) surmised improved communication skills among employees through positive leadership ideals and values, as increased communication within constructs can promote shared responsibilities and productivity. Additionally, improved confidence among team members improved cooperation among peers and the team's ability to work together collectively (Andy-Wali & Wali, 2018). Improved collaboration among teams can improve team productivity and efficiency.

Studies have shown that increased communication can impact GVT member behaviors. McLaron et al. (2019) inferred communication improved team productivity and efficiency through communicated goals and collaborative decision-making processes. Goldstein and Gafni (2019) correlated improved employee feedback and leadership coordination to improved collaboration among GVTs when leaders can identify and implement cultural intelligence strategies to improve their team's productivity and skillsets (Goldstein & Gafni, 2019). Goldstein and Gafni (2019) posited that increased communication frequency improved employee cross-cultural constructs, culturally and

professionally. Organizations that continue to drive increased communication can improve team collaborations and efficiencies.

Communication is an essential construct within cross-cultural competencies; however, a lack of communication among GVTs can make members feel segregated from groups or enhance their perception of their superiority over other team members. Segregation can generate avoidance communication behaviors or have team members segregate themselves further from team members, which diminishes the productivity levels of the team and the ability to establish trust and make decisions (Pudikova et al., 2019). Organizations can continue to drive communication to improve team member behaviors and mitigate segregation.

An issue that impacts team communication is technical difficulties. Technical difficulties are a weakness within virtual teams, which impact communication establishment, data sharing, and decision-making, as virtual teams depend upon the use of technology and cultural intelligence to improve communication levels, team productivity, and efficiency (Presbitero, 2020; Shaik & Makhecha, 2019). Yusof et al. (2017) identified that negative aspects of technology could decrease team productivity and trust; however, identifying proper technologies and cloud services can help minimize risk. Organizations should ensure they have multiple platforms available to GVT members to ensure a consistent flow of communication.

Cognitive, metacognitive, motivational, and behavioral cultural intelligence impact employees' trust and communication levels within GVTs, which can either improve or hinder team alignment and team expectations. Presbitero (2020) and Shaik

and Makhecha (2019) deduced the improved efficiency levels of employees with higher cultural intelligence, decreasing barriers, and improving communication and trust. Improved technology can help virtual team members improve cultural intelligence levels, improving trust, communication, team productivity, and efficiency.

**Productivity and Efficiency**

Productivity and efficiency are effects of trust and communication, which are integral to a GVT's ability to execute an organization's vision and mission. Zakaria and Yusof (2020) identified the need for strategic re-alignment among GVTs to improve decision-making strategies and innovation to improve patterns of behavior that affect team productivity and efficiency. Implemented strategies impact the field of cultural intelligence management and intercultural communication in cultural intelligence, which allow individuals to improve and switch behavior patterns that enhance their productivity and efficiency (Zakaria & Yusof, 2020). Goldstein and Gafni (2019) identified the benefit of cultural intelligence strategies as relevant to improving trust and communication, impacting team productivity and efficiency. Organizations that implement strategies to enhance trust and communication can improve team productivity and efficiency.

Studies have found that improved cultural intelligence training for team members can improve team behaviors. Naushad and Majid (2020) surmised the positive effects of metacognitive and motivational cultural intelligence on the job performance of multicultural teams. Job productivity improves as cultural intelligence improves among team members. Andy-Wali and Wali's (2018) study found improved confidence and productivity when leadership behaviors changed to support subordinates. Productivity

improves as leaders transform their behaviors to motivate and support an employee. Enhanced practices generated improved morale as the organization clearly articulated its vision and aligned with the goals and values of the employees, which improved productivity and innovation (Raja et al., 2018). Additionally, changed behaviors allowed for innovation and openness to change within the organization, which generated cohesiveness among teams, improving productivity.

Internal morale can increase confidence among employees and improve the performance of the employees. Employee perception is improved when leaders are perceived as engaged, which impacts productivity among teams due to improved job satisfaction and alignment of values and goals (Barnett, 2018). Improved relationships can improve a team's productivity through cultural intelligence strategies, enhancing efficiency, and improving decision-making and innovation.

Organizations are using cultural intelligence strategies to improve GVT productivity and efficiency. Increased GVT efficiency through implemented cultural intelligence strategies increases trust and communication (Black & Mendenhall, 1990). Understanding the cultural intelligence strategies utilized within GVTs to increase trust and communication, whether through technology or engagement, has improved team efficiency. Naushad and Majid (2020) found that the dimensions of cultural intelligence impact team effectiveness, with cultural skill being a more significant predictor of team effectiveness. The effectiveness of GVT members continues to grow as trust and communication increase.

Technology is vital in helping GVTs adapt cultural intelligence skills. Virtual teams use technology and cultural intelligence strategies to improve team effectiveness through improved communication and trust (Presbitero, 2020; Shaik & Makhecha, 2019). Cultural intelligence strategies increase a GVT's ability to improve relationships among teams by adjusting cultural behaviors when in a  multicultural setting, which impacts the effectiveness of team decision-making and innovation (Henderson et al., 2018). Cognitive intelligence improves the performance and effectiveness of team members, as anxiety is reduced in team members who have a baseline understanding of the cultures they are interacting with (Presbitero, 2020). Understanding how ICTs enable leaders and team members to establish trust and align goals will allow organizations to compete in dynamic environments and improve team effectiveness (Petter et al., 2019). GVT leaders understanding and utilizing of cultural intelligence strategies can generate a competitive advantage for GVTs and global organizations through increased productivity and efficiency, which improves decision-making and innovation.

Organizations can use improved cultural intelligence strategies to strengthen team decision-making. Decision-making strategies improve through cognitive learning and training (Zakaria & Yusof, 2020). Improved cultural intelligence impacts power-based decisions among multicultural teams (Murphy et al., 2020). Naushad and Majid (2020) posited that the impact of cognitive flexibility on process design and team dynamic enhanced decision-making through cognitive understanding, which improved an individual and team's ability to make effective and timely decisions. Leadership's ability to align cultural intelligence strategies within meetings enhances the decision-making

process and method as communication and collaboration are improved and trust is enhanced (Nordbäck & Espinosa, 2019). Organizations that drive cultural intelligence strategies to improve cognitive learning and GVT flexibility can improve team members' timely decision-making skills.

Some research has found self-interest to impact decision-making among GVT members negatively. Benmamoun et al. (2019) found animosity and ethnocentrism to affect decisions negatively; however, improved cultural intelligence could negate those effects. Higher emotional intelligence can improve global mindsets that utilize cultural competencies to strengthen global strategic decisions (Kornilova et al., 2018). Information technologies provide real-time and accurate data, enhancing decision-making (Jegorova & Kuznecova, 2020). A lack of IT, data, utilization of irrelevant information, and a lack of trust impact decision-making strategies among GVTs (Jegorova & Kuznecova, 2020). Matthews et al. (2018) found nationalism to impact decision-making negatively but noted increased cultural competency to help mitigate the negative impact of decision-making. Organizations should consider the benefits of cultural competence skills to minimize negative behaviors that impact decision-making strategies.

Researchers have found cultural intelligence strategies to enhance trust and communication among GVTs, which impacts team productivity and efficiency and results in increased innovation. Trust and communication are vital to a GVT's ability to improve team productivity and efficiency, impacting innovation. Naushad and Majid (2020) identified a correlation between team productivity levels to improved cultural intelligence levels, as employees were able to adapt and establish relationships among the

team in culturally diverse settings, which leads to improved decision-making and increased innovation. As team members' talent increases (Azevedo & Shane, 2019). Enhanced motivational practices are generated among GVTs members and improve morale when an organization's vision is clearly defined and aligns with the employees' goals and values, enhancing productivity and innovation (Raja et al., 2018). Motivational intelligence exists within team goals and incentives to drive innovation (Presbitero, 2020). Improved cultural intelligence improves individual and team abilities to engage in multicultural scenarios, which will enhance team productivity and efficiency (Earley & Ang., 2003). The field of GVT management and intercultural communications is affected by training in cultural intelligence, which, when implemented, could enable GVTs to improve knowledge sharing, which leads to innovation and sustained competitive advantage.

**Transition**

In Section 1, the foundation of the study introduced the specific business problem emerging due to globalization and identified that some GVT leaders often lack strategies to improve cultural intelligence behaviors, impacting team productivity and efficiency. Literature was reviewed to support the SET, cultural intelligence, and cross-cultural competencies, which improve trust and communication that impact team efficiency and productivity. This study aimed to identify strategies leaders utilize in the video game industry to improve cultural intelligence among GVTs to improve trust and communication.

The following two sections will provide specifics for the study, method of collection, findings, applications, implications for social change, and conclusion. In Section 2, the project is comprised of the role of the researcher, participants, research method and design, population and sampling, data collection, data analysis, and reliability and validity. In Section 3, application to professional practice and implications for change is comprised of the findings of the study, applications to professional practice, implications for social change, recommendations for action, recommendations for further research, and reflection.

Section 2: The Project

Global virtual teams (GVTs) require cultural intelligence strategies acquired through technology or engagement to improve behaviors that result in higher levels of trust and communication and improve team efficiency and productivity. The purpose of Section 2 is to identify the role of the researcher, eligibility criteria for participants, research method and design, data collection and analysis, and the reliability and validity of the study to understand the cultural intelligence strategies that GVT leaders within the gaming industry utilize to improve trust and communication. This section includes the role of the researcher, participants, research method and design, population and sampling, data collection, data analysis, and reliability and validity.

## Purpose Statement

The purpose of this qualitative multiple case study was to explore cultural intelligence strategies that GVT leaders use to improve trust and communication among team members. The target population included 18 GVT leaders from six video gaming organizations based in the Pacific Northwest and who had implemented strategies to improve trust and communication. The implications for positive social change included the potential to improve team members' cultural intelligence through strategies that build trust and communication, which could improve innovation and economic reinvestment in local communities.

## Role of the Researcher

Within a qualitative study, the researcher's role is to interview participants within the correlated industry and interpret the participant's perceptions while removing bias

and emotion from the responses of the participants (Sutton & Austin, 2015). The researcher is responsible for ensuring the anonymity of the participants and their data through the utilization of ethical and moral practices (Sutton & Austin, 2015). Additionally, researchers employing the SET identify various forms of noneconomic social interactions that result in benefits exchange (Molm, 1997). For this study, I conducted and recorded interviews with the permission of the participants to understand the strategies the leaders employ to improve trust and communication within GVTs. The identities of the participants are and will remain confidential.

My experience within the gaming industry provided a unique lens through which to speak and correspond with participants utilizing industry terms and acronyms. Being courteous to the participants, in addition to my cultural understanding of the industry, aided in helping the participants speak openly and provide concise answers. The data of this study were collected through participant interviews. I conducted interviews in person or through teleconferencing, whichever was more comfortable for the participant and mitigated disruption. During the interviews, I recorded the participants' responses and feedback. I used NVivo 12 to analyze and identify themes within the data.

There was no bias in the interpretation of the data, no falsification of my findings, and no exploitation of the participants. Miyazaki and Taylor (2008) noted that research should avoid secrecy, exploitation, and falsification of results to reduce bias. I have existing professional relationships with some participants, which could have generated bias. Ethically, I acknowledged my role in the study and the need to mitigate bias. My role as the researcher was to ethically mitigate bias by practicing the principles of the

Belmont Report and establishing protocols. The Belmont Report focuses on principles of

respect for persons, beneficence, and justice (National Commission for the Protection of

Human Subjects of Biomedical and Behavioral Research, 1978). I applied the principles

of the Belmont Report through informed consent, assessment of risk and benefits, and the

selection of the subjects. I mitigated bias by following the interview protocols (Appendix

A), member checking, and reaching data saturation. During the interviews, I asked all

participants the same carefully constructed questions in the same order to allow

participants to elaborate on specific concepts and ideas organically. During member

checking, I provided each participant with a copy of their interview summary. Data

saturation occurred within the study when no new themes emerged within my data

collection or data analysis.

## Participants

The participants for this study included 18 business leaders from six organizations

located in the Pacific Northwest. The participant eligibility criteria consisted of business

leaders who have implemented strategies to improve trust and communication and led

GVTs to successfully develop and launch video games across multiple platforms, such as

XBOX, Nintendo Switch, and Sony Playstation. Eligible leaders had also worked within

the video gaming industry for a minimum of 5 years. They had a minimum requirement

of directly managing seven or more individual contributors within their organization.

Additionally, potential participants were required to have worked on a GVT and for an

organization that had successfully developed and launched a video game in the past 5

years.

I accessed participants by using LinkedIn to ensure their ability to have met the requirements noted above. LinkedIn is a social media platform that allows for networking and collecting sources of data for researchers (Baruffaldi et al., 2017; Sumbaly et al., 2013). Some participants were from my extensive network of gaming industry leaders. I have established professional working relationships over the past 10 years when conducting meetings as a business development manager at gaming conferences, retreats, or expositions. Each potential participant was contacted via LinkedIn or received an e-mail, which included an introduction to the study and a consent form asking the individual to participate in the study by responding to the email with an affirmative response. Next, participants, who agreed to participate, received a calendar invite for scheduled meetings to conduct the study with a copy of the consent form and the participant's confirmation email attached to the calendar invite.

The research question was: What cultural intelligence strategies do leaders use to improve trust and communication among GVT team members? The identified participants were required to have utilized cultural intelligence strategies to improve trust and communication.

## Research Method and Design

The research method and design of the study were a qualitative multiple case study. Qualitative studies are conceptual, subjective, and require the researcher to understand the "why" of the phenomenon being studied (Saunders et al., 2015). The case study approach was chosen, as case studies are an investigation into the "why" or "how" a specific phenomenon occurred (Yin, 2018).

**Research Method**

The chosen research method for this study was qualitative. The qualitative method allows the researcher to use a variety of data sources, such as interviews and organization records, to understand why a conceptual framework within an identified business problem exists (Baxter & Jack, 2008). Researchers use the qualitative method to understand the "why" behind a conceptual framework, and a variety of data sources to measure insights into "why" a business problem exists based on subjective information (Saunders et al., 2015; Yin, 2018). Researchers are enabled, through qualitative research, to gain insights into business problems through the perspectives of the participants (Denzin & Lincoln, 2005). Qualitative research is ambiguous, and interpretations of the data are associated with the platform researched based on the insider's viewpoint, influencing later research decisions by encouraging future case studies through assumptions of social constructs (Rovai et al., 2014). Human interpretation within the relationship between the researcher and the participant allows the participants to share their perspectives.

Other research methods considered for the study were quantitative and mixed methods. According to Baxter and Jack (2008) and Saunders et al. (2015), researchers apply quantitative research to correlate the problem to the variables by gathering scientific data and testing the data against a theory. Quantitative researchers employ a theory for the foundation of the hypotheses to establish a relationship between the independent variables and the dependent variable. I did not use the quantitative research method because I was not measuring the relationships between the variables.

Mixed method research consists of both qualitative and quantitative methods. Mixed method allows for both philosophical conventions and validation of the conventions to be quantified scientifically (Mertens, 2010). Researchers utilize the mixed method to disseminate the business phenomenon from both qualitative and quantitative perspectives (Saunders et al., 2015). Mertens (2010) also noted that mixed method research requires testing a hypothesis from variable angles. I did not use the mixed method because it goes beyond the scope of this study, and I did not have a quantitative component within my study.

**Research Design**

I selected a multiple case study design for this research. In single or multiple case research, a researcher explores a phenomenon by interpreting the data collected from one or multiple studies of the phenomenon in a real-life environment (Saunders et al., 2015). Case studies enable a researcher to have more participants available for their data collection pool and allow the researcher to explore the "why," which removes the ability of the researcher to generalize and make suggestions (Yin, 2018). I chose a multiple case design for my study, as I sought to understand the phenomena through data collected by the participants in a real-life situation.

Case studies consist of four strategies: a holistic single case study, a single case study with embedded units, a holistic multiple case study, and a multiple case study with embedded units (Yin, 2018). Researchers use single case designs for unique scenarios where the event has taken place in one specific area (Saunders et al., 2015). Yin (2018) identified the rationale for choosing a single case study to test a well-thought-out theory.

The case is unique, or the case is longitudinal, reviewing the same group of individuals at multiple points in time.

Researchers employ multiple case studies to study phenomena across numerous replicated instances (Yin, 2018). The study intended to find replication, both literal and theoretical (Yin, 2018). Literal replications occur when the multiple case study can predict comparable results (Yin, 2018). Theoretical replications occur when the multiple case study can expect opposing results for predictable purposes (Yin, 2018).

Several additional types of designs are available in a qualitative study, including phenomenological and ethnographic. In phenomenological research, a researcher seeks to analyze the phenomenon through human experiences, as lived by the interviewed individuals (Arpanantikul et al., 2020). A phenomenological study was not chosen because first-hand experiences can generate a bias that could negatively have impacted my analysis. Researchers employ ethnographic research to study the phenomena of a study in its existing environment through participation or observation of participants with shared experiences (Leedy & Ormrod, 2005). Ethnographic research was not selected because I did not participate or observe participants with shared experiences to collect data.

The chosen research design was a multiple case study. A multiple case study allowed for exploring Homan's (1958) SET in virtual environments and the ability to confirm or expand on the theory by identifying thematic trends. Data saturation occurred when no new themes emerged from the data collected (Suri, 2011). To ensure data saturation, I continued collecting data through interviews, member checking, and review

of organizational documentation until no new themes emerged. This multiple case study utilized a holistic approach.

## Population and Sampling

The target population selected for this study included 18 business leaders from six organizations located in the Pacific Northwest. Each organization had three leaders, each representing a different team vertical: Engineering, Art, and Production. Using six organizations allowed the population within each vertical to provide a different perspective of GVT management. The participant eligibility criteria included business leaders who have implemented strategies to improve trust and communication and led GVTs to successfully develop and launch video games across multiple platforms, such as XBOX, Nintendo Switch, and Sony Playstation. Eligible leaders were required to have worked within the video gaming industry for 5 years and have a minimum of seven or more direct reports. I petitioned for participants until obtaining the study sample size.

The sampling method for this study was purposive sampling. Researchers utilize purposive sampling of participants to gather a level of data from individuals who have experienced the phenomena, which can be logically posited to resemble the whole (Ames et al., 2019). Purposive sampling allows for the most prolific sample of participants to interview on specific cases of the phenomena (Cope, 2011; Serra et al., 2018). The leaders chosen for this study have successfully launched games within the past 5 years. I sought out GVT leaders within the organization who have impacted the execution of successful video games. I used LinkedIn to identify participants who meet my study's requirements. Each potential participant was contacted via LinkedIn or received an e-

mail, including an introduction to the study and a consent form that asked the individual to participate in the study by responding to the email with an affirmative response.

The desired sample size provides for data saturation and adequately answers the research question (Yin, 2018). Data saturation occurs when no new themes emerge from the data collected (Suri, 2011). In this study, I used interviews through Zoom, Chime, or Microsoft Teams, member checking, and organizational documentation as my data collection techniques to enable themes to emerge and obtain data saturation. I continued to conduct interviews, member checking, and review organizational documentation until no new themes emerged.

I conducted interviews in person or through Zoom, Chime, or Microsoft Teams, which enabled all the participants to interview in an environment that was comfortable for them, as the location and time of the interview had to be convenient for the participant and provide the participant with a sense of comfort and control (Doody & Noonan, 2013). I recorded the interviews through the meeting recording option on Zoom, Chime, or Microsoft Teams, which allowed me to transcribe the meetings to my computer following the interview. My backup plan was to record the interviews via a voice recorder, which enabled me to upload and transcribe the interview to my computer.

## Ethical Research

Ethical research requires participants' consent by identifying the researcher's methodologies and ethical guidelines (Facca et al., 2020). A consent form was utilized and distributed to each prospective participant. It noted the purpose of the study, the interview process, the nature of the study, the risk and benefits of the study, and the

confidentiality of the study. I started the process by e-mailing each selected participant. The e-mail introduced me, the researcher, and detailed the purpose of the study and criteria for eligibility to participate in the study. I attached a consent form to each e-mail for the participant's review and returned it if they consented to the study.

Before starting the interviews, I emailed the participants the consent form to provide background information on the study and procedures. At any point of the study, a participant could have withdrawn for any reason through written or verbal communication to me. No incentives were offered to the participants for participating in the study. I let the participants know of my data collection method and ensured they were comfortable with the methodology before proceeding.

Researchers are responsible for protecting the identity of their participants (Facca et al., 2020; Yeong et al., 2018). As all participants were pooled from a network of gaming industry leaders and subsequent individuals within each leader's organization, with whom I have established professional relationships, each participant was assigned a character referenced in the study to ensure confidentiality. Walden's research guidelines require each researcher to obtain a Collaborative Institutional Training Initiative (CITI) certificate before conducting research. It requires the researcher to maintain the confidentiality of their participants. I will retain the data in a safe location for 5 years to protect the rights of the participants. After 5 years, I will destroy any written or recorded data. The Institutional Review Board (IRB) requires the ensured protection of the participants throughout the study process. The approval of the Walden University IRB (#03-15-22-1007253) and the use of the Belmont Report's requirements ensured the

protection of the participants' rights throughout the study process. Note that I have not

utilized their names to protect the participants and their respective organizations involved

in the study. The participants' and the organizations' identities are confidential.

## Data Collection Instruments

I was the primary data collection instrument in this study. I used semistructured

interviews, member checking, and reviewing organizational documentation. In a

qualitative multiple case study, the researcher collects data through engagement,

documentation, and/or observation (Cope, 2014; Yeong et al., 2018; Yin, 2018). Zakaria

and Talib (2011) used semistructured interviews to determine how cultural intelligence

impacts trust and communication among GVTs. Yeong et al. (2018) deduced that

semistructured interviews enable the researcher to probe more in-depth with participants

and their responses through member checking. Husband (2020) found that semistructured

interviews were a good way for the researcher to pose focused questions and lead a

purposeful discussion. I used semistructured interviews to explore the cultural

intelligence strategies GVT leaders have utilized to improve trust and communication

among team members.

For this study, interviews included a 90-minute meeting to collect data from the

participants. The interview protocol (Appendix A) consisted of the interview questions

and the procedures utilized for conducting the interviews. Semistructured interviews are

structured to allow the researchers to note focused questions, which lead to a purposeful

discussion (Husband, 2020). The concepts explored by the interview questions were the

effects of cultural training on team trust and communication. The questions also included

exploring the impact trust and communication have on team productivity and efficiency. I explored the effects of cultural intelligence training on team trust and communication through my interview questions.

My secondary data collection method was organizational documentation on organizational policies, training, and shareholder releases to identify new themes. This collection method helped me answer my research question through documented interactions on decision making and conflict resolution. To ensure data saturation, I continued collecting data until no new themes emerged.

Validity and reliability are affected by generalizations, bias, and poor recall (Yin, 2018). Experienced qualitative research panelists in the aligned field should review interview protocols and questions to ensure the validity and reliability of the instruments (Yeong et al., 2018). My committee reviewed the interview questions of this study to ensure the questions were valid and reliable, and aligned with the research question. Additionally, I conducted member checking to confirm the validity and reliability of participants' responses by enabling participants to add detail or address points (Saunders et al., 2015). Following the semistructured interviews, I utilized member checking and methodological triangulation to enhance the validity and reliability of the participants' answers.

**Data Collection Technique**

For this study, the research question was: What cultural intelligence strategies do leaders use to improve trust and communication among GVT team members? In qualitative multiple case studies, data collection can be achieved through sources, such as

direct observation, interviews, or documentation (Yin, 2018). Researchers should collect enough data to ensure enough research to support their results (Mertens, 2006; Yin, 2018). I used the data collection technique of interviews for this study. Interview protocols (Appendix A) ensured consistency across all participants. Interviews consisted of an introduction to the study, the research question, and 11 open-ended questions. A second meeting occurred for member checking. During the subsequent meeting, the participants were able to review a summary of their responses to the interview questions and provide additional commentary on their answers. To ensure the validity of the data collected, I interviewed 18 participants from six organizations.

Researchers utilize interview protocols to ensure quality data is collected, consistent, and increase the effectiveness of the interview (Yeong et al., 2018). For this study, the interview protocol (Appendix A) included the interview questions and the procedures utilized for conducting the interviews. I conducted interviews through Microsoft Teams, Chime, or Zoom. I recorded the interviews through each platform's system and translated the conversation into a Word document. Each interview was scheduled for 90-minutes with each of the participants. I scheduled a second meeting to conduct member checking, which allowed the participants to review the summary of their initial interview and make changes to ensure the answers reflected the participants' concepts on the interview questions.

Member checking occurred one week following the initial interview. Member checking enabled the researcher to ensure the validity and reliability of participants' responses by adding detail or addressing points (Saunders et al., 2015). Following the

semistructured interviews, I utilized member checking and methodological triangulation to ensure the validity and reliability of the participants' answers.

The advantages of using various data sources for data collection techniques increase the probability of validity and reliability in a study (Bowden & Williams, 2013). The interviews and member checking allowed the participants to elaborate on their answers organically. Administrative documentation review allowed more information to be collected without interfering with the participant's time. The disadvantage of interviews was the potential not to obtain the participants' trust, which could have impacted the participant's responses, and misinterpretation of the participant's responses could have generated incorrect theme analysis.

**Data Organization Technique**

The organization of the data helped lead to the coding of the data (Baxter & Jack, 2008). Researchers are responsible for protecting the identity of their participants (Facca et al., 2020; Yeong et al., 2018). Each participant was assigned a character and number, such as EA1, EB1, or EE1, which was referenced in the study to ensure confidentiality. All notes and recordings had the participants identified through their unique identifiers. Walden's research guidelines required each researcher to obtain a Collaborative Institutional Training Initiative (CITI) certificate before conducting research. It required the researcher to maintain the confidentiality of their participants.

I will maintain the electronic and hard copies of the data in a safe for 5 years to protect the rights of the participants. After 5 years, I will destroy any written or recorded data with a shredder or wipe an external hard drive. The IRB requires the ensured

protection of the participants throughout the study process. The approval of the Walden University IRB (#03-15-22-1007253) and the use of the Belmont Report's requirements ensured the protection of the participants' rights throughout the study process.

## Data Analysis

Triangulation is a validation strategy researchers can use in qualitative studies to identify themes and apply findings to previous knowledge (Baxter & Jack, 2008). Researchers can employ methodological, investigator, theory, or data source triangulation to verify the reliability and validity. Researchers utilize methodological triangulation to analyze multiple collected data sources on the phenomena, such as interviews, direct observation, and organizational documentation, to increase the reliability and validity (Abdalla et al., 2018; Farquhar et al., 2020; Fusch et al., 2018). I collected data through interviews, member checking, and organizational documentation for efficiency and productivity to conduct and provide methodological triangulation for this study.

Methodological triangulation helped ensure data saturation, reliability, and validity for this study. The interview questions provided the researcher with structured questions to lead a purposeful discussion. The concepts explored by the interview questions were the effects of cultural training on team trust and communication. Member checking occurred following the interviews to confirm the validity and reliability of participants' responses by enabling participants to add detail or address points not covered in the interview summary (Saunders et al., 2015). Organizational documentation was collected on corporate policies, training, and shareholder releases to identify new themes. This collection method helped me answer my research question through

documented interactions on decision making and conflict resolution. To ensure data saturation, I continued collecting data until no new themes emerged.

Data analysis occurred through Yin's 5 data analysis approach. Yin (2018) defined an approach that works with software to analyze data through organization, review, creation of codes, interpretation, and conclusion of data. My research question and interview questions were initially used to help organize the coding to organize my collected data. Researchers use the researcher question to organize data and then categorize and organize the identified codes and concepts based on each interview question and the other sources of data collected, which will result in the identification of themes and patterned regularities (Alam, 2020; Dalkin et al., 2021). The data was run through NVivo to review and create codes.

I analyzed all the data collected to identify concepts and themes using NVivo12. NVivo is a qualitative data analysis software tool used by researchers to identify and code concepts (Alam, 2020; Dalkin et al., 2021; Paulus et al., 2017). NVivo presented the coded concepts in a narrative for the researcher to identify themes. Researchers use themed analysis to identify relationships within the concepts and ideas and correlate to the study (Alam, 2020; Dalkin et al., 2021). I analyzed the data through a graphical portrayal of the categorized and coded ideas NVivo produced.

Theme analysis provides the researcher with narrative materials, which are analytically broken into small groups of content with descriptive treatments (Vaismoradi et al., 2013). I used the theme analysis to identify relationships to the context of the study. The identified themes of the data analysis were reviewed against and correlated to the

study's conceptual framework, SET, and existing literature to denote the effective cultural intelligence strategies that GVT leaders used to improve trust and communication among team members.

## Reliability and Validity

Reliability and validity improved the quality of a doctoral study. A researcher can ensure the reliability and validity of a doctoral study by providing the data and results are accurately reported and can be replicated by another researcher (Saunders et al., 2015). Sources of data quality issues that can negatively impact doctoral research are participant and researcher error and bias (Saunders et al., 2015). I mitigated participant and researcher error and bias by transcribing and documenting responses and findings accurately, member checking, and ensuring the probability of the replication of the study, which increased the reliability and validity of the study.

### Reliability

Reliability enhances dependability through member checking, transcript review, and methodological triangulation (Abdalla et al., 2018; Cope, 2014; Saunders et al., 2015). Member checking enables the researcher to ensure the reliability of participants' responses by adding detail or addressing points in subsequent meetings following the interview (Saunders et al., 2015). Member checking occurred in the second meeting with participants when participants reviewed the summary of their responses from the initial meeting and provided additional commentary, feedback, and insight to their responses to ensure accurate data interpretation, as needed. Researchers utilize methodological triangulation to analyze multiple collected sources of data on the phenomena, such as

interviews and organizational documentation (Abdalla et al., 2018; Farquhar et al., 2020; Fusch et al., 2018). My committee validated my research question and interview questions to understand participant responses and conversational flow better. This study used member checking, expert validation of the interview questions, participant interview protocols (Appendix A), and methodological triangulation to note reliability and obtain data saturation.

**Validity**

Researchers use member checking and methodological triangulation to increase the validity of the findings. The validity within qualitative research is founded on the findings' credibility, confirmability, and transferability (Cope, 2014). I ensured validity through data saturation through interviews, documentation, member checking, and methodological triangulation. I continued to collect data through interviews, member checking, and organizational documentation for efficiency and productivity and to conduct and provide methodological triangulation for this study until no new themes or concepts were derived from the research. Obtaining data saturation ensured the researcher's findings' credibility, confirmability, and transferability.

*Credibility*

Credibility is the researcher's ability to negate bias by addressing the finding from the participant's perspective (Cope, 2014). Credibility is increased through member checking and interview protocols. Researchers use member checking to enable participants to review their typed responses in subsequent meetings following the interview (Cope, 2014). Researchers use interview protocols to enhance credibility

through increased data quality and interview effectiveness (Yeong et al., 2018). I used

member checking and interview protocols (Appendix A) to enhance the credibility of my

study.

### *Confirmability*

Confirmability is the researcher's ability to corroborate the study's results through

member checking and methodological triangulation (Polit & Beck, 2012). Researchers

can enhance confirmability with member checking by adequately representing the

participants' responses through the researcher's interpretations and mitigating the

researcher's own biases and poor recall (Cope, 2014; Yin, 2018). Researchers use

methodological triangulation to substantiate multiple sources of data to generate

interpretations from the results (Fusch et al., 2018). I used member checking and

methodological triangulation to enhance the confirmability of my study.

### *Transferability*

Transferability is the ability of the findings to be applied to future research (Cope,

2014). Researchers enhance the transferability of the results through adherence to the

research design, interview, and observation protocols and obtaining data saturation

(Cope, 2014; Saunders et al., 2015). I used the multiple case method for my research

design, interviews (Appendix A), and numerous sources to obtain data saturation to

enhance the transferability of my findings for GVT leaders to develop cultural

intelligence strategies to improve trust and communication among team members.

### *Data Saturation*

Data saturation occurs when no new themes or concepts can be derived from the research (Yin, 2018). Researchers obtain data saturation occurs when they utilize methodological triangulation to analyze multiple collected data sources on the phenomena to increase the validity of a study (Farquhar et al., 2020). I ensured validity through data saturation through interviews, documentation, member checking, and methodological triangulation until no new information emerged.

## Transition and Summary

In Section 2, the project included the particulars about the role of the researcher, the participants, the research method, the research design, the population and sampling, foundations of ethical research, data collection instruments, data collection technique, data organization technique, data analysis, and reliability and validity. Section 2 also contained details on the process for data collection, the qualitative data analysis software used in the data analysis process, and the data validation for the study, which explored the cultural intelligence strategies that GVT leaders use to improve trust and communication among team members. Section 3 includes the particulars of the project findings and the application to professional practice, implications for social change, recommendations for actions, recommendations for further research, reflections, and a conclusion.

Section 3: Application to Professional Practice and Implications for Change

The purpose of this qualitative multiple case study was to explore cultural intelligence strategies the GVT leaders used to improve trust and communication among GVT members. The data came from interviews and company documentation from six gaming organizations based in the Pacific Northwest. The findings identified cultural intelligence, cross-cultural, and technology strategies that the leaders used to improve trust and communication among their GVT members to increase productivity and efficiency.

The collection and analysis of the data resulted in four major themes with minor themes. The four main strategies identified for improving trust and communication among GVT members were: (a) leadership transparency through information sharing or knowledge sharing; (b) the learning, establishment, output, and iteration of practices; (c) team dynamics through empathy and patience; and (d) the emergence of tools to enhance knowledge sharing.

## Presentation of the Findings

The overarching research question for this study was: What cultural intelligence strategies do leaders use to improve trust and communication among GVT members? The four main themes that emerged were: (a) information sharing; (b) creation and iteration of best practices/strategies; (c) localization development; and (d) development of cross-functional work tools. Within each of the core themes, minor themes emerged.

The four main themes were central to discovering the strategies GVT leaders implement and hone to improve trust and communication among team members. The

information sharing strategy includes the minor themes of transparency and team meeting styles/frequency, which leads to trust development, productivity, and team efficiency. The creation and iteration of best practices/strategies enable the implementation of global playbooks, pulse checks, and conflict resolution. The minor themes that emerged from localization development are the understanding of team dynamics through empathy, patience, and multicultural team benefits. The development of cross-functional work tools enables measurement of alignment on set goals/tasks, project tracking, idea sharing, and communication.

**Theme 1: Information Sharing Grows Trust**

Information sharing was the key theme and strategy to emerge, which aligned with the conceptual framework of the study, the SET. Thibaut and Kelley (1959) speculated that social exchange is the relationship between individuals who increase cultural intelligence through a repeated exchange of an intangible currency to achieve a common goal, such as knowledge sharing. Lerner and Lerner (1981) postulated that the SET is the shared interactions between individuals based on the expected social rewards of the relationship, which suggests that social behavior is the result of an exchange process to maximize benefits (innovation) and minimize costs (productivity and efficiency). The participants agreed that information sharing enabled trust to build based on "known expectations," "goals," and "tasks" from "organizational leaders" and "stakeholders." Participant BE5 noted the "establishment of aligned goals established reciprocity and benevolence among team members." Information sharing also developed trust through personal exchanges, such as through team events (virtual or in-person), one-

on-ones, or special interest groups within organizational communication tools. Participant EA1 found knowledge sharing improved trust through "one-on-ones, rotating meeting times to help regional team members feel valued, and/or through team shadowing, where team members silently listen and observe global team interactions." As shown in Figure 1, the participants had a high utilization of responses that included terms of information sharing or knowledge sharing when describing the cultural intelligence strategies their teams use to improve trust and communication among GVT members.

**Figure 1**

*Information or Knowledge Sharing*
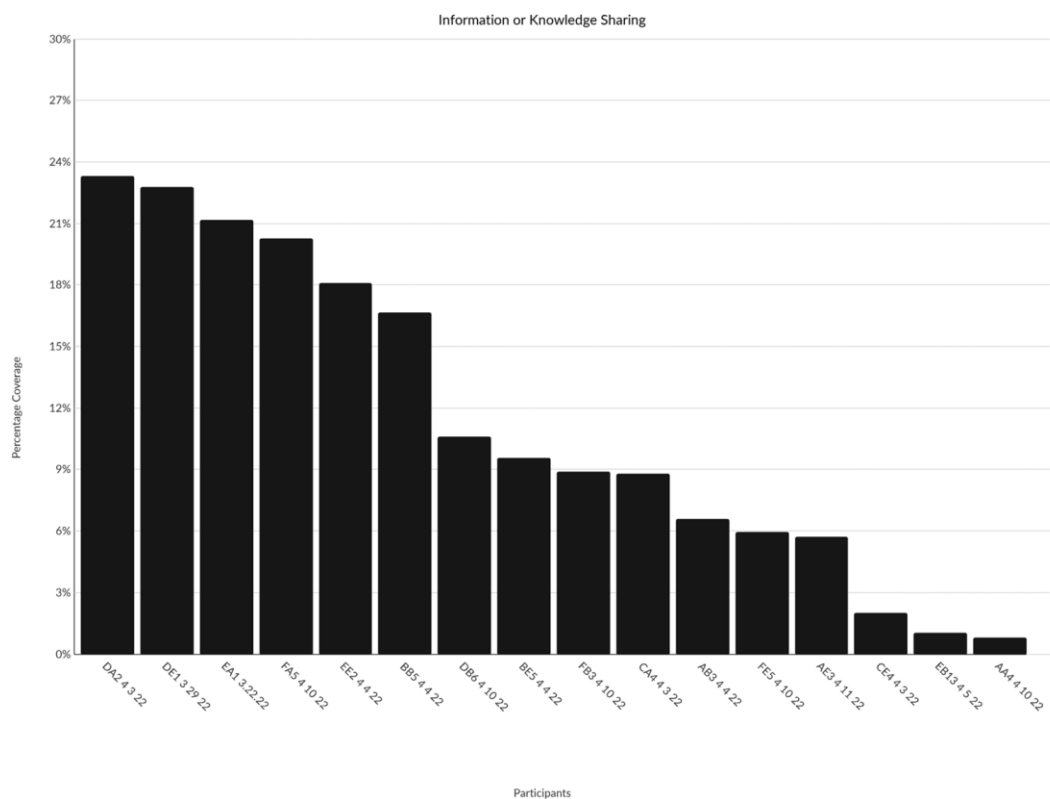


The participants established relationships through engagement with the teams on both "professional" and "personal" levels to allow for trust to develop. CA4 noted GVT

members using an "internal tool that mirrors a lightweight version of Facebook to enable teams and leaders to communicate and collaborate." Teams use the tool to help increase information or knowledge sharing on personal elements, share ideas, and provide feedback. Participants agreed that engagement occurs through the utilization of "technology" or during "on-site visits" with global teams. Wei et al. (2019) employed the SET to identify the improved trust and knowledge sharing of team members based on the expectations of extrinsic rewards, reciprocity, or the enjoyment of helping others. Nachmias et al. (2022) implied leader utilization of SET impacts multicultural team development and leadership, which improves the productivity and efficiency of teams. Trust development within teams aligns with SET elements as team members improve communication and commitment to their team goals and expectations.

Sixteen out of 18 participants agreed that knowledge sharing conducted through transparency helped GVT members understand "what they are working on" and "why it matters," which generates "clarity" for team members and helps them "feel impactful." Participant BB5 noted, "clarity stems from team members understanding why they are on the team, what they are working on, and why it matters, which results in traction that creates impact." Impact instills trust in leadership because all teams and individual contributors understand what they are tasked to do and why. Raja et al. (2018) found that unity among the employees' goals generated empowerment to collaborate and influence decisions. Xia et al. (2021) posited collaborative knowledge sharing to improve innovation among global teams. The participants noted that identifying goals "empowers teams" to make decisions based on the "set expectations" and "guardrails," which

improves productivity and efficiency. Participant AE3 noted to "unlock potential and provide empowerment; one must create clarity, generate energy, and manufacture success." Transparency increases trust and generates motivation that improves team productivity and efficiency by helping teams and team members understand what is required.

The participants noted transparency to come in the form of "increased communication." Participant CA4 found "all-hands meetings and coffee talks to effectively ensure transparency and communication" within GVTs. Effective communication improves through socialization and cultural intelligence strategies that help mitigate the polarization of cultures and team members (Litvinova et al., 2021). The participants agreed that the "socialization of goals" and "objectives" occurs through "set cadences" established at the "beginning of a project," "fiscal year," or "quarter." These cadences occur daily, weekly, biweekly, monthly, quarterly, and fiscally to provide the organization and teams with weekly goals, activities, or organizational news. Participant CE4 noted that these forms of communication occur in "Monday standups, one-on-ones, weekly/monthly/quarterly business reviews, all hands, coffee talks with the CEO, or through electronic information sharing, i.e., e-mails or chat groups." The findings of this study note that information sharing or knowledge sharing through leadership transparency provides clarity and removes the ambiguity that can impact a global organization, improving trust and communication among team members and facilitating productivity and efficiency.

**Theme 2: Creation and Iteration of Best Practices/Strategies**

Creation and iteration of best practices/strategies were identified as the second main theme and strategy to emerge from the study. The participants noted the iteration of continued learnings shared through "best practice communications" or a "new strategy" to improve team trust and communication. Participant BE5 posited "continuous improvements in processes, as gaps arise, instills trust among team members," as they feel heard. The participants agreed best practices are "continually" being "identified" or "changed." Iteration of best practices/strategies occurs continuously through learnings and changes in processes, laws, or regulations. Batirlik et al. (2022) posited that adjusting norms through strategy iteration helps improve trust and communication among multicultural teams. Figure 2 shows the participants' continued focus on creating and iterating best practices and strategies throughout their cultural intelligence leadership practices.

**Figure 2**

*Creation and Iteration of Best Practices/Strategies*

Creation and Iteration of Best Practices/Strategies
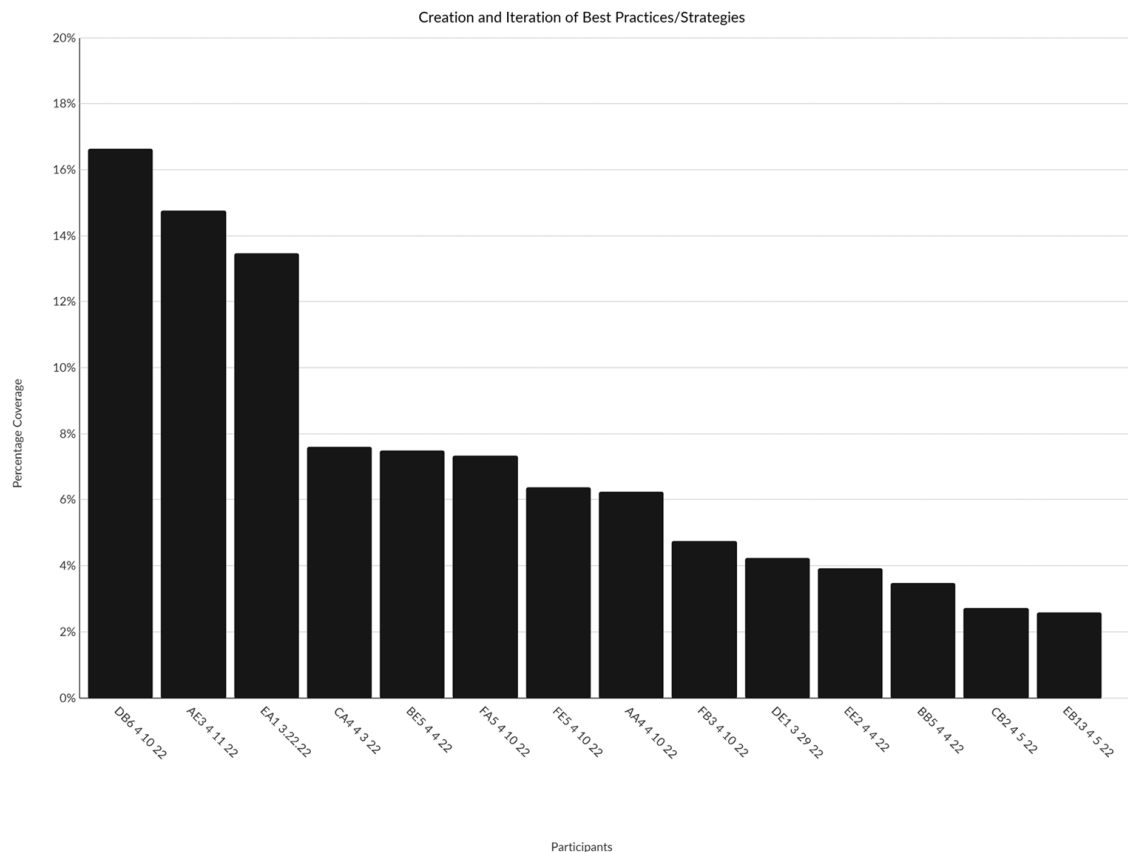


Participant AE3 posited that while working within global teams, "you have to study the culture, you have to study what leadership feels like towards that culture, and then modulate what is appreciated and not appreciated within that culture." Some of the participants noted generating regional "modules," "playbooks" based on the "values," "morals," and "laws/regulations" impacts "how leaders" engage with multicultural teams around the world. The participants agreed that using malleable best practices amplifies the GVT member's trust in leadership and the organization as these "actions," "solutions," and "desired" altruistic and reciprocal "behaviors" are already multicultural.

SET outlines the self-interest, altruistic, and reciprocal behaviors which impact a team's ability to build trust, increase communication, and improve productivity and efficiency (Muldoon et al., 2018). Arai et al. (2022) noted that developing team altruism strategies improves cooperative behaviors. Understanding how self-interest and altruistic behaviors are exerted through reciprocal expectations and reward/punishment behaviors helps leaders identify strategies to help GVTs improve productivity and efficiencies within virtual teams.

The minor themes that emerged from the creation and iteration of best practices/strategies were the thematic trends of pulse checks and conflict resolution. Davidaviciene and Al Majzoub (2022) noted that understanding team dynamics helps leaders gauge and improve aspects of the team's processes. Improved cultural intelligence strategies have improved how students and professionals engage with other cultures and improved cognitive, metacognitive, motivational, and behavioral cultural intelligence (Abdien & Jacob, 2019). Naushad and Majid (2020) found that the dimensions of cultural intelligence impact team effectiveness, with cultural skill being a more significant predictor of team effectiveness. The participants noted "pulse checks" to help "gauge" the team and team members holistically. Participant CE4 pointed out that "understanding and being invested" in the team requires "cultural intelligence strategies to be employed every day as a core self-operation to lead by example by understanding how others work, creating cohesiveness and alignment among cross-functional teams." Using best practices/strategies to understand the teams and team members' motivational

and behavioral culture intelligence strategies enables leaders to gather feedback, empower idea sharing, and identify gaps within existing best practices/strategies.

The participants noted "conflict resolution" as a best practice/strategy that positively "impacted" GVTs and should be "iterated upon continuously." Davidaviciene and Al Majzoub (2022) posited conflict to negatively impact teams due to differences in norms and values. Peñarroja et al. (2015) identified how SET elements could be applied within virtual teams to improve trust, influencing team commitment, communication, and conflict reduction. Fourteen out of 18 participants noted conflict resolution needing to be "addressed immediately" and "ambiguity removed" through improved communication. Participant CE4 posited that when issues arise, "post-mortems need to be conducted" to understand the why and resolutions implemented to improve team alignment, knowledge sharing, trust, and communication. Conflicts generate gaps in productivity and affect team/ team member efficiencies. The participants noted that not all conflicts are work-related and can be associated with "local," "personal," and "social matters" affecting members. Naushad and Majid (2020) emphasized the impact cross-cultural competence strategies had on improving emotion regulation, optimism, and perspective-taking among participants, which improved the ability of participants to establish relationships and reduce conflict within  multicultural scenarios. The participants agreed that ensuring best practices/strategies include "human" and "empathetic" practices ensures team trust and communication continue to build and improve.

**Theme 3: Localization Development**

Localization development was the third main theme to emerge from the study. It was an unexpected theme but provided a deeper insight into the participants' successful use of cultural intelligence strategies within their organizations to improve trust and communication among their GVTs. The participants noted localization development as a key to multicultural team "success" through the minor themes of empathy, patience, and multicultural team benefits. Boiko (2022) posited localization as a necessity to improve globalization. Figure 3 shows the participants' emphasis on localization development as a cultural intelligence strategy to enhance trust and communication among their GVTs.

**Figure 3**

*Localization Development*
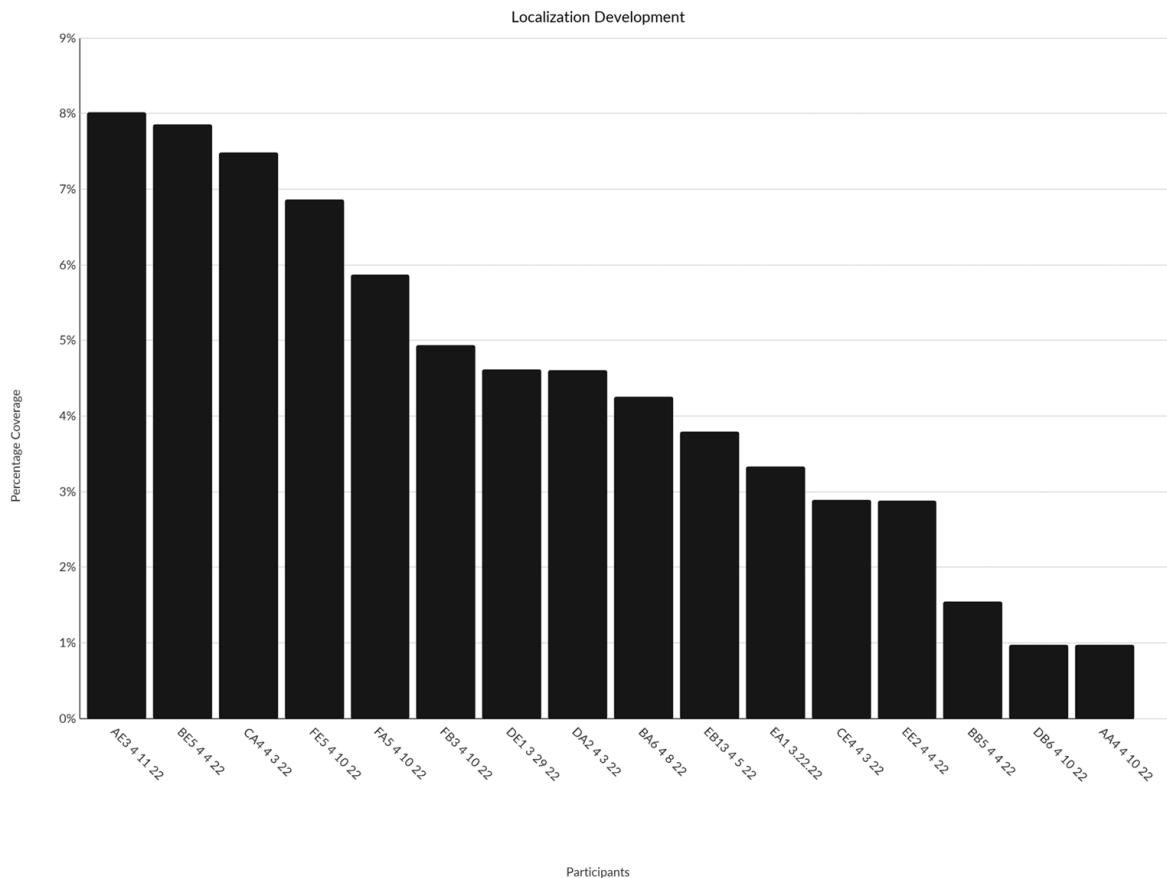


Huertas-Valdivia et al. (2019) identified the need for leaders to be more

employee-focused within social exchanges, as leaders are responsible for employee

engagement in the success of organizational goals. Sixteen out of 18 participants noted

"localization" as understanding how multicultural teams' regional history, economy,

laws/regulations, culture, and social norms impact the end "product" user experience

(UX). Participant CE4 agreed localization development to improve product development

at a "global" scale rather than in a "set region" or "silo." Localization development is

relevant to the SET, as SET focuses on the reciprocity of relationships resulting from the

exchange. Reciprocity results from self-interest and interdependence, benefiting knowledge sharing and improving team productivity and efficiency (Moilanen & Ikäheimo, 2019; Sungu et al., 2019). Meira and Hancer (2020) noted organizational reciprocity as organizations' implemented strategies to improve employee productivity and effectiveness and generate a mutual benefit. Immler and Sakkers (2022) found reciprocity to improve through localization development.

The findings revealed the minor themes of empathy, patience, and the benefits of multicultural teams. The participants noted that leaders need to have "empathy" and "patience" to establish trust among team members. Participant AA4 indicated that it is "important just to get to know people and be human." Participant AE3 noted teams should be "perceived as neurons working together and passing information despite working independently. These connective tissues synchronize the organism so that all teams have a work-life balance." Tussoleha-Rony and Yulisyahyanti (2022) posited work-life balance to increase team continuity and productivity. Leadership empathy and patience result in acknowledging a need for work-life balance and understanding team needs based on region.

The participants noted "empathy" and "patience" to generate "respect" and improve employee "motivation" as they feel "heard." Participant EB13 posited that "empathy empowers individuals, teams, and organizations to stack rank projects with regional/global sensitivity." Participant DB6 found productivity and efficiency to improve when leaders were able to "understand team members' motivation and identify what motivated them as an individual." Through established framework and cultural

intelligence strategies, coordination and communication mitigate cultural differences and strengthen empathy, trust, productivity, and efficiency among virtual team members (Zakaria & Yusof, 2020). Kilduff and Cormican (2022) found emotional intelligence, communication, and empathy vital strategies needed within multicultural teams to improve productivity and efficiency. The participants identified the benefits of multicultural teams in bringing "varying perspectives" to organizations improves the organization's ability to add "cultural relevance" or "zeitgeists" to an ever-changing and evolving world. An organization's ability to adapt to varying cultural constructs through cultural intelligence performance, strategies, and processes improves the organization's success and minimizes behaviors that hinder productivity (Presbitero, 2020). Cross-cultural competencies improve an individual's ability to engage in multicultural scenarios and impact organizational trust and communication, impacting productivity, efficiency, and innovation (Earley & Ang, 2003). Localization development enhances team and team members' cross-cultural intelligence through empathy and patience by improving product development, productivity, and efficiency.

**Theme 4: Development of Cross-Functional Work Tools**

The development of cross-functional work tools was the fourth main theme of the study. Wei et al. (2019) employed the SET to identify the improved trust and knowledge sharing of team members based on the expectations of extrinsic rewards, reciprocity, or the enjoyment of helping others. Teams with trust development align with SET elements as team members improve communication and commitment to their goals and expectations. The participants noted the use of developed cross-functional work tools aids

in improving "real-time" document sharing, aligned "goals/tasks," "agendas," "idea sharing," and enabling "constant collaboration." Participant DE1 noted that "cross-functional tools, like Salesforce, help communicate consistently on deal flows, track KPIs, and business goals." Jovceska and Zununi (2022) found technology to improve team engagement and a sense of belonging. As shown in Figure 4, the participants noted the repeated use of cross-functional tools and tool development as a cultural intelligence strategy to improve trust and communication among their GVTs. Organizations utilize technology to improve training strategies and communication among their employee base through various platforms (Pudikova et al., 2019; Sheridan et al., 2018). Shaik and Makhecha (2019) found organizational leaders recognize virtual infrastructures' dependency on technologies to collaborate and ensure expectations and employee productivity levels are met. Technology advances the way organizations interact and train their employees, as some organizations develop internal tools outside of Zoom, Microsoft Teams, Facebook, Salesforce, or Slack to communicate and share ideas.

**Figure 4**

*Cross-Functional Tool Development*
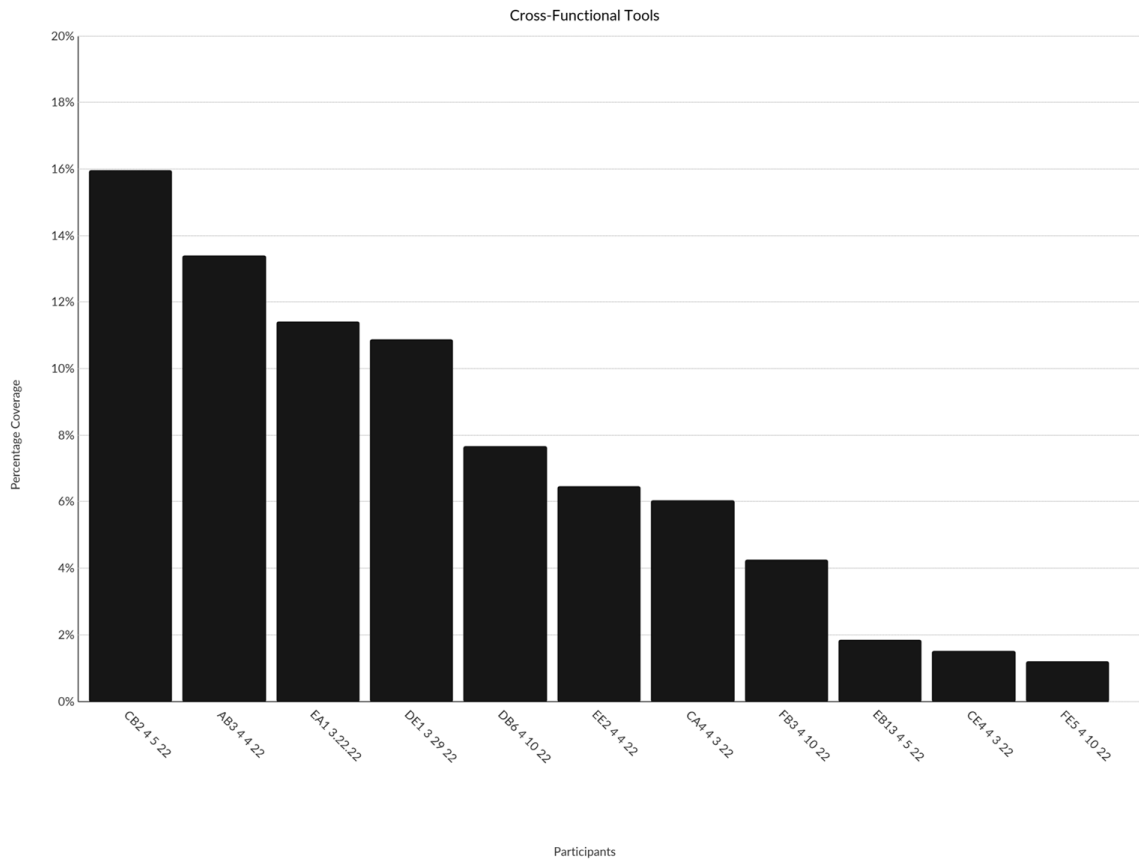


The minor themes to emerge from the study were the participants' use of these tools to align goals/tasks, track projects, idea share, and enhance communication. ITs can increase communication and knowledge sharing by utilizing multiple IT sources (Rahma et al., 2020). Organizational alignment within teams and internal IT can improve team productivity and effectiveness (Setyadi, 2019). Wei et al. (2019) posited knowledge sharing benefited trust-building and improved communication strategies. The participants agreed that developed "tools" enabled global team "alignment" on where a "project/task" was completed or left uncompleted during the workday in one region and where team

members in another region needed action. This generates a "24-hour" workday for global

teams, which increases team productivity and efficiency. Wang et al. (2022) found that

IoT-based collaboration software improves operational performance. Participant EE2

concluded that "technology enables communication and 24-hour business cycles, but

base tools don't generate success, as the connective tissues/relationships generate

success." IT enables leaders to track projects through systematic measures and allows

team members to share ideas or thoughts on projects or new concepts to improve projects

or timelines. Participant DB6 noted technology provides leaders with data that helps them

have "a single source of truth" for their information. Wang et al. posited aids in

information sharing that enable leaders to make improved decisions. Technology brings

individuals together to form teams, reviewing and collaborating on cognitive tasks

(Peñarroja et al., 2015). Information technologies help organizations share accurate and

real-time data with diverse team members and groups through digitalization and analytics

(Jegorova & Kuznecova, 2020). The participants agreed that tools "enhance

communication" among the team by professionally and "socially connecting" team

members to improve trust.

Additionally, the participants agreed that tools allow organizations to ensure team

members are functioning in a healthy "work-life balance" and enable leaders to identify

"gaps" or "issues" as they occur and mitigate them. Participant CB2 noted that the

organization uses technology to provide leaders with "visibility on GVT members' work-

life balance and team productivity levels." The use of cross-functional tools aid in

helping GVTs increase communication and trust to impact knowledge sharing, which improves team productivity and efficiency.

## Applications to Professional Practice

This study's findings were significant to GVT business practices within the gaming industry and the cultural intelligence strategies used to improve trust and communication among team members. Other industry GVT leaders can apply the developed strategies within their organizations/teams. The study's findings revealed GVT leaders' views within six gaming organizations concerning strategies for improving trust and communication among GVTs. These findings can also apply to various industries with GVTs to improve trust and communication among teams. With increased trust and communication teams, these findings might aid in improving team productivity and efficiencies.

As organizations expand and diversify their teams through social capital, cultural intelligence strategies are necessary to improve employee trust and communication. The findings from this study provide cultural intelligence strategies for global organization leaders to implement, such as leadership transparency through information sharing/knowledge sharing; the learnings, establishment, output, and iteration of best practices/strategies; localization development of team dynamics through empathy and patience, and the development of cross-functional work tools to enhance knowledge sharing. Organizations have used cultural intelligence strategies to improve behaviors within GVTs. Higher cultural intelligence within GVTs enables team members to overcome barriers generated by multicultural differences (Shaik & Makhecha, 2019).

Improved cross-cultural competencies among GVT members occur when teams follow cultural intelligence training and recommend improved training for professionals (Prebitero & Toledano, 2018).

A leader's ability to implement cultural intelligence strategies within virtual teams improves communication and enhances trust (Nordbäck & Espinosa, 2019). Pudikova et al. (2019) and Sucher and Cheung (2015) suggested enhanced communication forums to improve employee cross-cultural competency levels, as cultural intelligence strategies increase productivity and efficiencies across global team strategies established by organization leaders. The study's finding also details how trust and communication development occur concurrently through knowledge sharing and the development of cross-functional work tools. Information sharing and the use of cross-functional work tools help improve team productivity and efficiency.

## Implications for Social Change

The implications for positive social change could arise from business leaders using cultural intelligence strategies to improve trust and communication among GVT members. Implemented cultural intelligence strategies could enable leaders and GVT members to improve productivity and efficiency within the organization. The study findings contributed to positive social by defining four strategies that pertain to multicultural teams that promote trust and communication development, which impacts team productivity and efficiency.

The study findings may add value to societies as improvements to productivity could also increase the company's profitability, allowing the company, leaders, and GVT

members more opportunities to give back to their local communities and economies. The findings showed that increased productivity and efficiency impacted other organizations to hone team members from the same regions based on their credibility, abilities, and integrity, promoting economic reinvestment in local communities through employee investment, improving education systems, and creating jobs.

The findings apply to a nonbusiness-related factor, the human factor. Information sharing through transparency, the creation and iteration of best practices/strategies, localization development, and the development of cross-functional work tools can be used and iterated on a global scale within various communities, regions, or countries. The development of human relationships on a common level can help to facilitate improved global relationships.

## Recommendations for Action

Leaders continue to diversify and expand globally to increase their competitive advantage. In doing so, leaders continue to gain information on business practices that improve their teams' ability to be productive and efficient through increased trust and communication. The study findings provided insights into strategies gaming industry leaders have developed and implemented to increase GVT member trust and communication. The study findings showed information sharing, the creation and iteration of best practices/strategies, localization development, and the development of cross-functional work tools to enable team members to optimize efficiency and productivity while still having a genuine work-life balance.

The recommendations of this study are based on the four major themes that emerged in the findings. The study results included the recommendations for implementation of the developed strategies and further research. Global leaders may find the study recommendations useful for understanding and implementing cultural intelligence strategies for improving GVT member trust and communication. Key recommendations of the study are knowledge sharing through transparency and defined team meeting styles/frequency, which leads to trust development, productivity, and team efficiency. The creation and iteration of best practices/strategies is a recommendation that can be obtained through global playbooks, pulse checks, and conflict resolution. Recommendations of localization development through empathy, patience, and multicultural team benefits improve team motivation. The development of cross-functional work tools is a recommendation that allows leaders to measure alignment on set goals/tasks, project tracking, idea sharing, and communication. Pudikova et al. (2019) and Sucher and Cheung (2015) suggested a need for enhanced communication forums to enhance employee cross-cultural competency levels, as cultural intelligence strategies have been found to increase productivity and efficiencies across global teams strategies established by organizations. As industries continue to expand globally, some industry leaders can use the findings of this study to implement cultural intelligence strategies to improve trust and communication among team members.

The study might be beneficial to other industry leaders and organizations. I intend to share the results of this study with a broader audience by disseminating this study through organizational events, literature conferences, and further expansion of this study.

I would like other organizations to use the study results to improve their current business practices and strategies to improve team dynamics locally and globally.

## Recommendations for Further Research

The recommendation for further research is to include more regional based gaming industries around the globe, which would provide more multicultural insight into the localization of the cultural intelligence strategies within each community, as an original limitation to this study was the use of managers from six specific gaming companies in the Pacific Northwest. The expansion of the study to include more regional-based gaming industries would validate the study's findings. Recommendations also include interviewing participants at various levels and work experiences within the varying global organizations to determine if the findings would be the same or different, as all participants had to have worked in the gaming industry for at least 5 years and have direct reports.

The study's findings included recommendations for future research on the exploration of localization within the tools established to improve organizational communication and knowledge sharing. Another recommendation would include the exploration of multicultural teams outside of the gaming industry to understand the influence these teams have on the business implementation of cultural intelligence strategies to improve team trust and communication. The findings from future studies would include further implementation of strategies that improve multicultural relationships.

**Reflections**

The tech industry has transitioned into a high-tech market filled with continuous innovation and development, which has resulted in the tech industry becoming a force in the global economy through human and material resource consumption (Liu et al., 2019). As organizations expand and diversify their teams through social capital, cultural intelligence strategies are necessary to improve employee trust and communication. A need for understanding and awareness of cultural intelligence strategies to improve cognitive intelligence among organizations and employees, as globalization increases, has been a hot topic among organizational leaders (Cotton et al., 2019). Business leaders are trying to understand how organizations can start incorporating competency pieces of training into their corporate culture as the need for global business skills increases among business employees. Organizations use cultural intelligence strategies to expand the productivity and effectiveness of leadership and communicate and improve trust among team members. Additionally, cultural intelligence strategies improve productivity and efficiencies across global teams through strategies established by organizations (Pudikova et al., 2019; Sucher & Cheung, 2015). Identifying the cultural intelligence strategies within virtual teams in the tech industry, utilized to increase trust and communication, whether through technology or engagement, could improve team efficiency and productivity of other sectors with GVTs.

I worked to take an unbiased approach during my research process by following set interview protocols and ethical data collection methods. Although I have had professional working relationships within the gaming industry, I had no preconceived

ideas about the study question, but I knew that challenges existed in other industries I had worked in compared to the gaming industry.

Throughout the data collection process, the participants appeared comfortable and relaxed during their interviews and were very responsive in answering the interview questions. I was mindful of being unbiased and impartial during the interviews and during the review of organizational documentation. During data analysis, I continued to be mindful and impartial while developing themes and subthemes.

After completing the study, I have found that I changed the way I perceived multicultural teams within GVTs, as I initially thought of GVTs as being comprised of multicultural team members from various regions. I learned that multicultural teams are comprised of many cultural team members within each specific region, where diversity is part of everyday life. This functionality is what improves cultural intelligence among team members within global regions, which brings best practices back to organizations within the Pacific Northwest.

I also gained a deeper insight into how leadership impacts the implementation of cultural intelligence strategies. The leaders participating in this study agreed that change comes from the top down and requires leaders to lead by example by making themselves available to their team members through clear and honest communication.

This research comes at a time where many organizations and industries are operating virtually or in hybrid work environments following the pandemic COVID-19. The findings from this study may help these organizations and industries improve their

cultural intelligence strategies to improve the trust and communication of their team members, despite not being global or multicultural.

## Conclusion

Organizations continue to expand and diversify their teams through social capital, making cultural intelligence strategies a necessity to improve employee trust and communication. This study included the exploration of cultural intelligence strategies gaming industry leaders use to improve trust and communication among GVTs. I used methodological triangulation to collect data using semistructured interviews and organizational documentation. Using these data collection techniques, data saturation occurred when no new themes emerged.

Using interviews, member checking, and organizational documentation, the study findings provided cultural intelligence strategies organizational leaders can use to improve trust and communication among GTVs. Due to the time constraints of this multiple case study, this research is an exploration of cultural intelligence strategies, and the findings of the study may not be applicable to every industry. The recommendations for action and further research gained from the findings and conclusions may contribute to further business practices and social change. Gaming industry leaders provided strategies to improve trust and communication among their GVTs, which may improve trust and communication among their team members.

Four major themes with subthemes emerged from the study: (a) information sharing; (b) creation and iteration of best practices/strategies; (c) localization development; and (d) development of cross-functional work tools. Through analysis, I

learned that multicultural teams enhanced ideas shared to improve aspects of different projects and bring innovation. Multicultural teams enable global organizations to knowledge share and generate localization playbooks for varying regions. Most importantly, this study brought to the forefront the need for all individuals to be empathetic and driven to understand that the differences between every human provide insight and ingenuity into the creative that drives successful businesses and relationships.

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Appendix A: Interview Protocol

**First Meeting: Interview**

Introduction: Thank you for taking the time to be a participant in my study, Strategies Global Virtual Team Leaders Use to Improve Trust and Communication. The general business problem is that some GVTs experience lower levels of productivity and team efficiency because of a lack of cultural intelligence strategies utilized to improve trust and communication among GVT team members. The specific business problem is that some leaders lack cultural intelligence strategies to improve trust and communication among GVT members. The purpose of this qualitative multiple case study is to explore intelligence strategies that GVT leaders use to improve trust and communication among team members.

My research question is: What cultural intelligence strategies do leaders use to improve trust and communication among GVT members?

I will be asking 11 open-ended questions during this interview. I will be taking notes on your responses during the interview and may ask follow-up questions, as needed. Additionally, I will be recording this interview for transcription accuracy, which will be transcribed and submitted to you in a subsequent meeting to ensure agreement with the transcription. Please speak openly and to the best of your knowledge on your answers.

**Interview Questions:**

1. How do multi-cultural teams influence your GVT?

2. What length of set periods do your GVTs collaborate?

3. What cultural intelligence strategies do you use to improve GVT member trust and communication?

4. How, as a leader, are you prepared to employ cultural intelligence strategies?

5. How do you measure improved trust and communication among GVT members?

6. What cultural intelligence strategies do you use to increase swift trust with the addition of new GVT members?

7. What cultural intelligence strategies do you use to help instill trust among team members within the context of ability, integrity, and benevolence?

8. How do cultural intelligence strategies impact productivity?

9. How do cultural intelligence strategies impact team efficiency?

10. How do you measure the effectiveness of cultural intelligence strategies?

11. What additional information would you like to contribute to this study?

Following the end of the interview, I will thank the participants for their time and participation in my study. Concluding script: I thank you greatly for taking time to participate in my study today. I will schedule a subsequent meeting in the next two weeks to allow for you to review your typed-up responses and make any changes, as needed. Thank you.

**Second Meeting: Member Checking**

Introduction: Thank you for making time for our second meeting to validate your responses from our initial interview. Please review the printed responses to each question

and additional questions, as were needed. Please note any changes, additional comments, or feedback, and I will document the changes.

Following the end of the interview, I will thank the participants for their time and participation in my study. Concluding script: I greatly thank you for taking time to participate in my study today and the time that you have given for these interviews and reviews. If you have any questions or concerns regarding this study, please feel free to contact me.