

RESEARCH ARTICLE

Trust shaping the social relationship of diverse learners in the online education environment

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ABSTRACT

Trust is an essential glue that binds diverse groups toward working synergistically. Without trust, it becomes more challenging to achieve engagement and an inclusive environment for learning. As such, this study is about methods of engaging virtual learners and remote workers through teamwork and the building of social relationships in today's digital and diverse world of higher education. This research specifically focuses on trust to build a better learning environment in online education. Qualitative, open-ended interviewing is used to explore 30 learners' emergent, interactive, and social construction of trust. Data from the responsive interviews were subjected to several levels of analysis to elicit findings and interpretations. The analysis sheds light on whether learners learn best if they are given a common goal to work interdependently. Sociability is often skipped to achieve outcomes that are common to all group members. Failure to communicate effectively commonly results in a breach of trust, but learners can re-engage in social learning by explaining their behavior. However, repeated breaches of trust, especially among diverse teammates, can cause irreparable damage to the outcome. Implications and recommendations are discussed.

Keywords: trust; social learning; online learning; collaborative learning; trust development; online education

1. Introduction

The Covid-19 pandemic's impact through an abrupt shift to online learning and remote working has uncovered a new world of opportunities for parents, educators, managers, and working professionals^[1]. One commonality amid all these opportunities would be the development and maintenance of trust between employees and managers^[2], students, and professors, as well as among colleagues and teammates to effectively socialize and learn during this era of digital transformation^[3,4]. While trust can serve as the glue that binds groups and teams together, it requires hard work and strategic planning. Without trust among teammates and managers, minor disagreements can lead to misperceptions and major conflicts that are often rooted in stereotypes, biases, and bullying behaviors toward individuals that are different from everyone else^[5,6]. As such, trust is an essential and foundational component of bringing equity, inclusion, and belongingness into the world of higher education^[7].

The good news is that social interactions of learners and trust generation can be predicted based on regular collaboration networks^[8]. Quality social interactions rooted in genuine trust are instrumental in shaping

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successful online social learning experiences^[9-12] which are extremely important in a post-Covid-19 pandemic world where online education and remote work have become more prevalent.

In reviewing the research on social learning theory and web-based learning environments (WBLEs), Hill, Song, and West^[12] found that social interactions “help to initiate, sustain, and support associated social learning processes” such as risk-taking. There is an element of risk involved in any social interaction because each interaction involves revealing something about oneself — one’s identity, knowledge, capabilities. Guenther and Möllering^[13] argue that trust is a key factor in overcoming such risk and, thereby, in shaping constructive social interactions. Otherwise, an organization’s culture can become abusive where bullying and mobbing can become the norm^[6]. Guenther and Möllering emphasize that, “beyond a rational choice, routine behavior, or past experience—there has to be a kind of leap of faith, i.e., the suspension of remaining doubt, uncertainty, and ignorance” that others will not harm us^[13]. In the context of learning, trust facilitates the risk-taking behaviors needed for deeper learning individually and as groups^[14].

Given the importance of trust, while serving as the glue that binds people, in shaping learners’ social interactions and questions about how contemporary technology reshapes social worlds and trust, there is a need to conduct research that qualitatively examines the emerging, interactive, social construction of trust among learners in the context of online social learning; that is, in the tradition of Goffman, how learners perform trust in their online social interactions. The current study, which is original qualitative research with actual online learners, contributes to the extant literature with new findings on how to enhance learning for remote professionals in this area of trust research and social relationships^[15]. It is important comprehensive qualitative research that can help online learners and remote workers to form stronger relationships. The following research question explores the emerging, interactive, social construction of trust from the learners’ point of view: How does trust shape the social relationships that diverse learners form in this context?

2. Literature review

Recent researchers on online learning using the technology acceptance model (TAM) and the impact of various platforms, such as social media, indicate that there is still much to be learned before its anticipated potential can be reached^[16]. Since the focus of this study is on trust building to enhance relationships and engage learning communities, we will focus on students who are working in groups with other learners online. Sadly, many learners report low satisfaction rates, academic institutions report inferior student-student interactions as well as struggles to retain students in online courses, and research shows mixed results concerning the effectiveness of online learning^[17-22]. One of the key factors shaping the success of online learning is the social dimension of online teaching and learning.

Because of trust’s critical role in shaping social interactions and learning, it is important to explore how learners perform trust in this networked online environment colored by network sociality and how these performances differ because of the online context. Wittel^[21] provides insights into what changes one may expect. He points out that in traditional research on trust, social structures, social roles, shared biographies, extended time, and extensive knowledge of someone’s character have been key factors in shaping decisions to trust. However, online trust seems to be based on other factors; specifically, repeated short interactions and personal resources, or one’s social capital.

2.1. Trust in online social learning

Past literature demonstrates that there are significant gaps in the research on trust in online social learning^[22]. Trust has been researched from the psychological, social psychological, and sociological perspectives. The psychological and social psychological perspectives approach the study of trust from the

individual perspective which views trust as a predisposition, shaped by social structures and experiences of trust, or a rational cost-benefit analysis toward generalized others. These perspectives fail to recognize the social constructivist nature of trust and the interactional methodologies needed for a study of social trust. Sociological research on trust, however, helps us to form a basis for a social, interactional, emergent view of trust needed for this study. It considers the social construction of trust in a particular context. Sztompka's^[23] model of trust identifies indicators that shape the process of trust. Weber and Carter's^[24] research on the emergence of trust provides a relevant theoretical and methodological study on trust. This broad and extensive literature on trust serves as a guide from which to assess empirical data about learners' performances of trust in the context of online social learning, including psychological and social psychological understandings.

2.1.1. Sociological view of trust

Sztompka's^[23] sociological theory of trust and Weber and Carter's^[24] sociological study of performances of trust in friendship and love relationships provide a model for our theoretical and methodological frameworks. What is distinctive about the sociological perspective of trust is that it is contextualized in the tensions of modern life and technology mediated communication. We will provide an overview of a general sociological understanding of trust, Sztompka's^[23] sociological theory of trust, and Weber and Carter's^[24] sociological study of trust in friendships and love relationships.

2.1.2. Sociological understanding of trust

The sociological view of trust emerged from the socio-political studies of many researchers^[25–28] who concluded that trust is a means to reduce the complexity, uncertainty, anonymity, and risk inherent in modern life shaped by technologies. They conceptualize trust as “some sort of belief in the goodwill of the other, given the opaqueness of other's intentions and calculations”^[29–31]. Researchers such as Simmel, Luhmann, Sztompka, Putnam, Fukuyama, and Seligman^[23,30,32,33], among others, incorporate social constructs such as sociability, social capital, identity, and social systems in developing their conceptualizations of socially performed trust. Trust is viewed as a form of sociability^[34], a type of social capital^[35,26,25,36], and intimately linked to identity as we try to “know” the person we intend to trust. Of course, trust can be violated in cases of biases, stereotypes, prejudices, and blatant as well as subtle forms of illegal discrimination^[37–39].

In the absence of knowing people well, we place our trust in their roles and the shared expectations associated with those roles—“roles function to reduce uncertainty regarding the role occupant's trust-related intentions and capabilities”^[40]. Or, as Fukuyama^[41] explains, trust is: The expectation that arises within a community of regular, honest, and cooperative behavior, based on commonly shared norms, on the part of other members of that community. Those norms can be about deep ‘value’ questions like the nature of God or justice, but they also encompass secular norms like professional standards and codes of behavior. That is, we trust a doctor not to cause us deliberate injury because we expect him or her to live by the Hippocratic oath and the standards of the medical profession.

Putnam^[42] links trust to the connections among individuals and the value social capital that exists in these connections: social capital is “features of social life networks, norms, and trust that enable participants to act together more effectively to pursue shared objectives. Social capital refers to social connections and the attendant norms and trust”^[25]. He characterizes these connections as social networks and the norms of reciprocity and trustworthiness that arise from them. Putnam relates trust to social norms within a community and links them to social relations and networks. He characterizes these connections as social networks and the norms of reciprocity and trustworthiness that arise from them. For Putnam, trust is a form of social capital that emerges from one's sociability, one's social interactions in the context of social networks. Welch et al.^[43] found that the more embedded individuals are in dense secular social networks, the more likely they are to

trust strangers.

Fukuyama^[26], like Putnam^[31], also proposes that trust is built on shared values and norms within a community. He links trust with social capital and sociability: “one of the most important manifestations of trust as a form of social capital is the spontaneous sociability such trust engenders”^[40]: “If people trust one another because they are all operating according to a common set of ethical norms, doing business costs less. Such a society will be better able to innovate organizationally, since the high degree of trust will permit a wide variety of social relationships to emerge”^[26]. Without shared norms and trust, society must resort to legal means. Fukuyama^[41] says that trust is a phenomenon that arises “because of social capital but not constituting social capital itself”.

Although sociologists recognize the value and influence of social structures (e.g., family groups, social networks) and roles in shaping performances of trust, they maintain that, ultimately, performances of trust emerge in social interaction, with a particular other, for a particular reason^[29]. For example, people, in general, may trust friends to keep a secret, but they re-negotiate this decision with their friends each time they have a different secret to share. Membership in social groups and role obligations are not sufficient to shape whom we trust. All friends, for example, cannot be trusted in the same manner, always, and in all circumstances. Performances of trust are negotiated “within the *interstitial space* between role and expectation”^[24]. That is, the need for trust emerges in the space between a role, its associated norms and expectations, and negotiations of this role because it is in this space that others’ agency becomes uncertain and risky^[30]. We trust that the other is who s/he says s/he is and that “trust is some sort of belief in the goodwill of the other, given the opaqueness of other’s intentions and calculations”^[29]. Therefore, although we construct our identities in society, we are not “stamped out” by society^[44]. We “produce and build experiences, emotions, identities, and social worlds through dialogue and discourse”^[45].

In the sociological theory of trust, Sztompka^[23] addresses our vulnerability and risk in interacting with others by delineating how we can assess the trustworthiness of the trustee to inform our decision to trust. Let us review Sztompka’s model of trust to explain the factors involved in assessing someone’s trustworthiness.

2.1.3. Sztompka’s sociological theory of trust

Echoing other sociologists and trust researchers, Sztompka^[23] developed a rationale for the need to trust based on the complexity and risks inherent in modern life. Specifically, he refers to global interdependence, the complexity of our social environment, the specialization of roles, and the increasing anonymity and impersonality of those upon whom people depend the “growing presence of strange, unfamiliar people in our environment” as impetuses to trust^[23]. In the tradition of Putnam, Sztompka envisions trust as a “crucial component” of social capital^[23]. Trust “increases social capital” and conversely^[23]. The rationale for this can be found in Putnam’s explanation: “The theory of social capital presumes that, generally speaking, the more we connect with other people, the more we trust them, and vice versa”^[25]. Bourdieu^[34] expresses a similar connection between social capital and sociability: “The reproduction of social capital presupposes an unceasing effort of sociability, a continuous series of exchanges in which recognition is endlessly affirmed and reaffirmed”.

Trust, therefore, encourages associations, the construction of social networks, and what Fukuyama^[26] termed “spontaneous sociability,” and what we as academic colleagues constantly refer to as “spontaneous collegial interactions” that can take place around the watercooler or university hallways among educators. These spontaneous collegial interactions are essential among managers, employees, educators, and students since social capital emerges from our sociability in shaping relationships and networks. The networks to which we belong, the external networks with which we interact, the density of our networks, and our positions in the

networks have implications for trust decisions. Welch et al.^[43] found that the more embedded individuals are in dense secular social networks, the more likely they are to trust strangers. In addition, the more likely individuals are to trust someone, the more likely they are to participate in associations with others and, in doing so, increase social capital. The networks to which we belong are shaped by and shape our identity. Who we are guides us in selecting the networks that we would like to join. Once we are members of these networks, we then help to shape the identity of the group and the group helps to shape our identity. As Sztompka^[23] explains, the “culture of trust” that is built between individuals and associations contributes to shaping “feelings of identity”.

The ideas of social capital, sociability, and identity are quite relevant to this study as they are key constructs in social learning. In this sense, the social construction of trust and the social construction of learning share a key attribute: social relationships. As Bakhurst and Sypnowich^[44] explain:

We are socially constructed beings because our identities are significantly shaped by social or cultural influences the particular mental states of individuals, and the dispositions of their characters, are formed in social interaction. Each of us believes what he or she believes, wants what he or she wants, and so on, as the result of a complex process of education and socialization. We learn the science and myths of our time and place, and we internalize social values and norms this does not mean that we are “stamped out” by society. We are participants in our own construction and exercise some autonomy in the face of the forces of socialization the influences of social forces are the paramount determinant in the shaping of our identity our very capacities to think and act are themselves socially constituted. Lev Vygotsky argues that our social being is implicated in the genesis of the intellectual capacities constitutive of consciousness. The human mind is not just shaped by society, it is made in society.

Sztompka^[23] integrates the ideas of these prominent trust researchers to provide a “comprehensive theoretical account of trust as a fundamental component of human action” (p. viii) and develops an “eclectic model”^[46] of the factors that shape the formation of trust. He defines trust as “a bet about the future contingent actions of others”^[23] which, at a high level, incorporates two factors: 1) belief in others; 2) a commitment to that belief through action. If people trust someone, then they believe that they can formulate a theory about how the other will behave in the future. When people place their trust in someone, then they act on that belief ‘as if’ they know the future^[23]. Faith allows them to bracket the unknown and, hence, to trust^[47].

Three sources of trust information, or three dimensions of trust, inform beliefs and commitments: 1) psychological trust is the trusting disposition of the trustor, or trust as a property of the trustor; 2) relational trust is information concerning the trustor’s and trustee’s trust behavior in past and current relationships, or trust as a property of the relationship; 3) cultural trust is information about the context in which the trustor and trustee negotiate their relationship, or trust as a property of social wholes (see **Figure 1**).

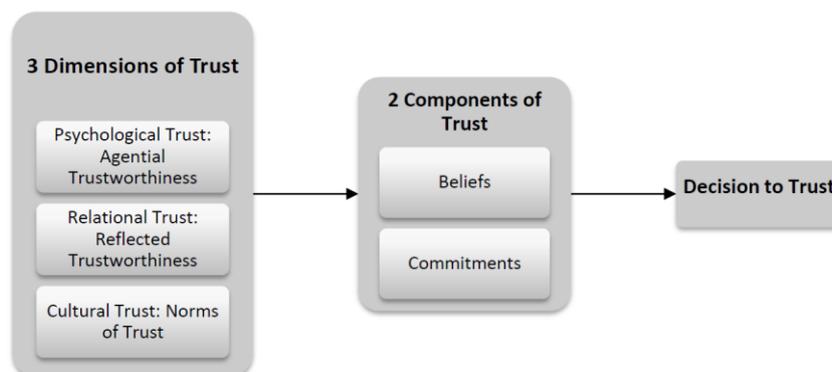


Figure 1. Three dimensions of Sztompka’s model of trust.

For Sztompka^[23] trust can only be placed in human beings: “behind all other social objects, however complex, there also stand some people, and it is the people whom we ultimately endow with trust”. This is a distinctive feature of Sztompka’s theory of trust. He does not distinguish between trust in individuals^[48] and trust in social objects as has been typically done in traditional trust research^[49]. In the next section, we examine the three dimensions of trust more closely to understand their role in shaping decisions to trust. To reiterate, the three dimensions of Sztompka’s sociological theory of trust are 1) trust as a property of the trustor (psychological); 2) trust as a property of a relationship (relational), and 3) trust as a property of social wholes (cultural). Depending on the trust context, one or more of these three dimensions contribute to the trust decision.

Trust as a psychological property of the trustor proposes that trust is a personality trait which is genetically determined. Luhmann^[28] explains that “readiness to show trust is dependent on the systemic structure of personality”. Giddens^[48] refers to it as “basic trust”, Fukuyama^[26] as “spontaneous sociability”, and Simmel as sociation^[50]; see **Figure 2**). Sztompka^[23], however, proposes that the trustors’ “trusting impulses” are shaped by “life experiences with trust”^[23]. As Lewis and Weigert^[51] explain: “trust is analyzed as the product of individuals sequentially reacting to each other’s behavioral displays. From this atomistic perspective, trust resides in individuals, focuses on some social object, and is enacted in behavior”.

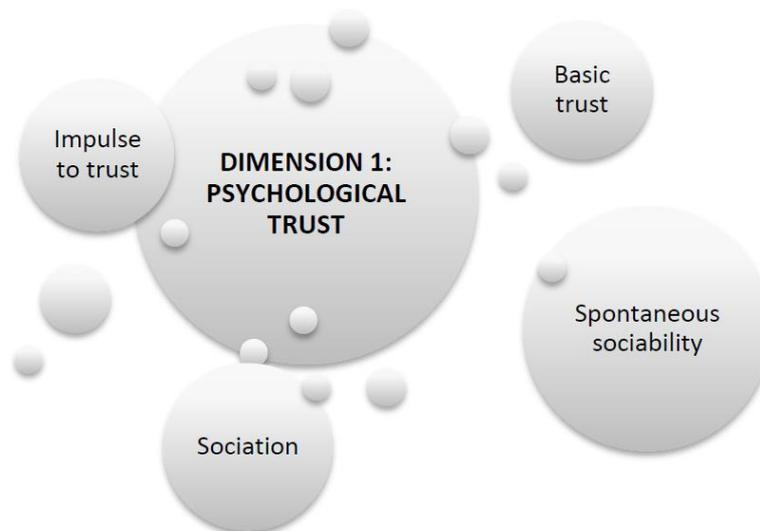


Figure 2. Factors shaping psychological trust from sociological literature.

As a sensitizing concept for this study, we expect that trust as a property of the trustor shapes the initial risks that learners are willing to take in the learning process. Learners’ trusting impulse guides initial efforts to associate and relate to other learners, especially when they are unfamiliar with each other and the learning context. The trusting impulse acts as a mediating variable in the development of trust and in making a trust decision. Although it sets the foundation for the decision to trust, it does not, alone, determine it. This leads us to add Proposition 1 of Sztompka’s model of trust and its correlates:

- 1) Proposition 1: Agential trustfulness mediates the decision to trust (psychological dimension of trust).
- 2) Proposition 1a: Agential trustfulness is shaped by life experiences with trust.
- 3) Proposition 1b: Agential sociability mediates trustfulness and conversely.

Trust as a relationship focuses on the relational perspective of trust—how knowledge about each other’s trustworthiness mediates the decision to trust. Sztompka^[23] considers two types of relationships: 1) dyads (or between two people) and 2) group or cooperative trust. The difference between these two types of relational trust centers on the scope of trust. Whereas, in dyads, trust is performed between two people with individual identities, group trust is extended among individuals to each other and the group. The group itself assumes an

identity and trustworthiness.

Knowledge about each other’s trustworthiness may be obtained from primary and secondary sources. Primary sources of trustworthiness consist of knowledge about: 1) reputation; 2) performance, and 3) appearance and demeanor. Reputation is the most reliable source of these three as it represents a history of trust behavior. Performance is the second most reliable source as it speaks to the trustee’s current trusting behaviors.

Appearance and demeanor are the least trustworthy sources as they are external signs that can be easily “faked”^[23]. Secondary knowledge consists of contextual cues that provide insights into the trustee’s trustworthiness such as: 1) accountability of the trustee; 2) pre-commitment, and 3) trust-inducing situations (see **Table 1**).

Table 1. Factors shaping relational trust.

Reputation	<ul style="list-style-type: none"> • Shared biography • Extensive social interaction • Record of past deeds • Consistency • Social capital • Credentials
Performance	Present conduct
Appearance and Demeanor	Physical presentation
Accountability	Monitoring and sanctioning
Pre-Commitment	Ethical codes of behavior
Situational Factors	Visibility and closeness

Reputation “is a capital asset. One can build it by pursuing certain courses of action or destroy it by pursuing certain others”^[52]. Reputation and trust are intimately interwoven. Reputation is a “record of past deeds;” how trustworthily the trustor has acted in the past and, therefore, how likely it is that the trustor will act trustworthily in the future^[23]. “Trust accumulates as a kind of capital which opens up more opportunities for more extensive action”^[28]. A trustworthy reputation, therefore, evokes trust in others. When assessing someone’s trust reputation, it is also important to look at the consistency of the trust record. Consistency helps us to determine what to expect of someone, or, as Giddens^[4] notes, what would be “out of character”. In Sztompka’s^[23] conceptualization of trust, we are more inclined to trust those we know well, have known for a long time, and known to have consistently behaved in a trustworthy manner. Time and extensive social interaction are important considerations in assessing someone’s trustworthiness.

Sztompka^[23], however, also considers scenarios where this might not be possible; that is where trust is shaped among anonymous others, without the benefit of extensive time and social interaction. In these cases, Sztompka recommends consulting secondary sources of primary knowledge; that is, a person’s credentials, to inform the decision to trust. There are three types of credentials that can be examined to determine the trustworthiness of someone: 1) second-hand testimonies; 2) “encapsulated” credentials, and 3) “contagious” trust^[23]. Second-hand testimonies include “stories, biographies, accounts by witnesses, CVs, resumes, publication lists practicing in highly selective professions (e.g., doctor, engineer, professor) membership in exclusive associations admitting members through rigorous meritocratic selection (e.g., learned societies)”^[23]. Encapsulated credentials include academic degrees, professional licenses, and medals. Contagious trust represents credentials based on trust extended by others, especially those we trust. In this case, trust is contagious because we extend trust to others simply because someone, we trust trusts the trustee.

Although all these sources of trustworthiness are meant to provide credible information regarding the identity of the trustee, Sztompka^[23] and Coleman^[35] warn that all clues of trustworthiness may be manipulated. The construction of false identities to elicit trust has been and continues to be of great concern in face-to-face scenarios as well as on the Internet.

Performance is another cue of primary trustworthiness. Performance represents the “actual deeds, present conduct, currently obtained results. The past is suspended, “bracketed,” and one focuses on what the potential beneficiary of trust is doing now”^[23]. Performance of trust is not as reliable as a reputation of trust because it focuses on the immediate presence rather than a long-term perspective of trustworthy behavior. Performance nonetheless serves a purpose. In the absence of reputation or where reputation may be irrelevant, performance steps in to inform the trust decision. For example, one learner may collaborate with another learner who has a reputation as a competent, hard-working, collaborative individual. In the present, however, the second learner may be behaving irresponsibly and not contributing to the task at hand. In this case, the second learner’s reputation is irrelevant because, in the current instance, the learner is behaving differently; that is, behaving in an untrustworthy manner.

Appearance and demeanor represent the third type of cue used to estimate a trustee’s trustworthiness and to form expectations of them. Physical presentation through dress, physical makeup, and civility reveals insights into personality, identity, and status. One tends to trust those in uniforms. One also tends to trust those who maintain good bodily discipline, who are clean, look healthy, and so on. Moreover, one trusts those who show good manners and self-restraint in their conduct^[23]. In general, we tend to trust those who are most like us “People tend to trust those who are similar to them and to distrust those who are dissimilar from them”^[49]. Similarity in external looks, age, gender, and race, among other factors, shape whether one trusts someone. Hardin^[53] explains the reason for this as follows: “we are merely better at predicting the behavior of those most like ourselves”. One reason is that those who are like oneself share one’s values and, therefore, are more likely to behave as expected.

Because appearance and demeanor constitute external, superficial signs, it is easier for one to “fake” them than reputation or performance^[23]. Closeness, intimacy, and familiarity with the trustee reduce the risk of manipulation and deceit^[53,28,30,23]. They provide unique visibility into the trustee’s identity and, thereby, help the trustor to ascertain whether the appearance and demeanor of the trustee are authentic. “To attain familiarity and visibility, a dense network of groups, communities, voluntary associations, and friendship circles, providing opportunities for personal contacts, seems necessary”^[23]. “Perhaps this visibility is the causal link that connects trust and a rich network of associations, in the concept of social capital as advanced by Robert Putnam”^[23]. One of the implications of this is that anonymity and distance obscure one’s visibility and, hence, undermine trust. The Internet appears to be especially vulnerable to distrust: “The borderless anonymity of cyberspace makes transactions over networks more suspect than contracts signed in a local office or purchases made in a Main Street emporium”^[23].

Accountability, pre-commitment, and situational factors represent three contextually derived cues that provide further insights into the trustee’s trustworthiness. Accountability ensures that mechanisms are in place to encourage the trustees to act trustworthily. These mechanisms include monitoring behaviors and sanctioning them if trust is breached: “Accountability dampens inhibitions to grant trust and encourages a more open, trustful attitude, because it provides the trustor with a kind of insurance against possible losses, a backup option against potential breaches of trust”^[35,53,23]. Pre-commitment represents actions that trustees take in given contexts to enhance their trustworthiness^[23]. These include following certain ethical standards of behavior which guide behavioral expectations. *Situational factors* such as visibility and closeness may exert pressure on trustees to behave in a trustworthy manner. For example, membership in close-knit, small, and intimate

communities instead of “anonymous urban crowds”^[23] ensures that members have closer, more intimate, and interdependent relationships where each member’s behavior is visible to all other members and, thereby, encourages trustworthy behavior: “To the degree that members of society are visible to one another in their performance of social roles, this increases the scope and decreases the cost of both monitoring and sanctioning activities”^[23]. Although the trust decision is between the trustor and trustee, other community members mediate the decision. Visibility and closeness work together to horizontally constrain the behavior of community members to create a trusting context^[23].

Trust as a property of social wholes addresses the cultural dimension of trust; that is, how groups develop a culture of trust which facilitates or discourages trust. Trust as a cultural rule maintains that trust is rooted in the normative systems of society. Decisions to trust, therefore, are informed by the normative rules that shape the cultural context of trust^[7,54]. These normative rules define a group’s obligations to trust and to be trustworthy, credible, and reliable. Typically, normative rules are associated with particular social roles, or role identities. For example, there are normative obligations for lawyers to keep secrets in the form of privileged communication^[23].

The culture of trust involves more complex considerations in informing the decision to trust than considerations of agential trustfulness or the reflected trustworthiness of the trustee. Sztompka^[23] leverages his theory of social becoming to create a hypothetical model of the social becoming of trust—or culture of trust. In this cyclical model (**Figure 3**), the culture of trust is shaped by four sets of variables: 1) background variables in the form of historical traditions of trust or distrust; 2) *independent* variables in the form of structural opportunities for positive or negative experiences with trust or distrust; 3) *mediating* variables in the form of agential endowment that is defined in terms of two sets of variables: a) social mood and b) collective capital, and 4) dependent variables in the form of cultural effect that provides a feedback loop to the historical tradition.

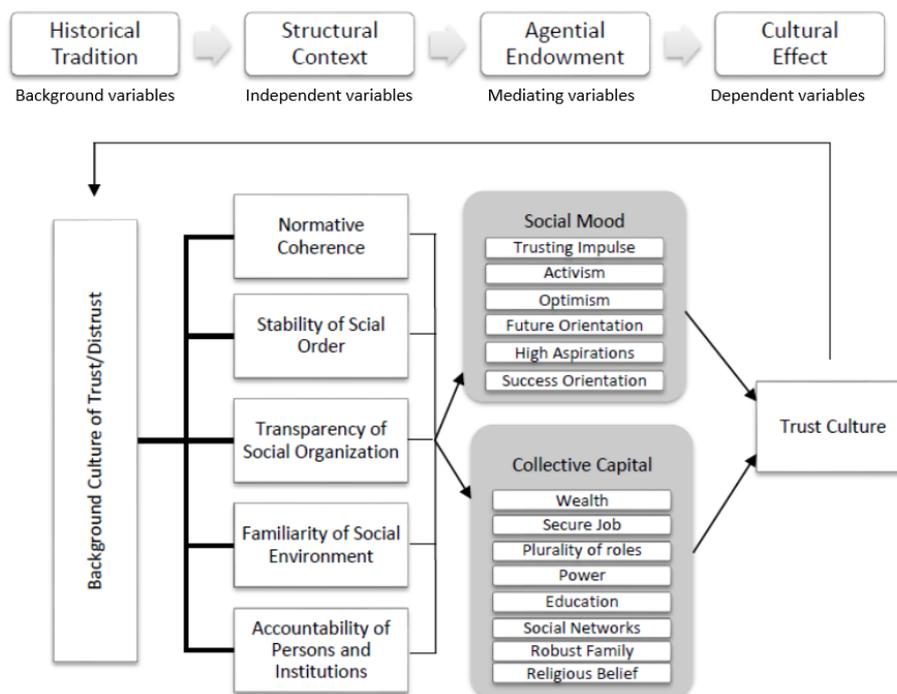


Figure 3. Factors shaping cultural trust - Sztompka’s model^[23].

Historical tradition functions as a background variable that represents “some inherited level of trust culture: the tradition of trust or distrust”^[23]. These background variables inform the structural context, or structural circumstances normative coherence, stability of social order, transparency of social organization,

familiarity of the social environment, and accountability of persons and institutions. These circumstances function as *independent* variables that increase or decrease the likelihood that expectations of trust will be met or betrayed. These suggestions are mediated by the “endowment of the actors” which are classified into two types of *mediating* variables: “social moods” and “collective capital”^[23]. These mediating variables include the social capital, sociability, and social identity of the culture’s members.

To summarize, a trustee’s reputation for consistent performances of trustworthy behavior, the trustee’s current performance of trust, and similarities in appearance and demeanor between the trustor and trustee represent three primary cues for determining a trustee’s trustworthiness and, thereby, shaping the decision to trust. Accountability, pre-commitment, and trust-inducing situational factors represent three sources of derived trustworthiness that work in concert with primary sources (i.e., reputation, performance, and appearance and demeanor) to inform the trustor’s expectations of trustworthy behavior. Visibility and closeness are two factors that shape these cues of trustworthiness. Our goal in this study is to better understand the role that trust plays in shaping the social relationships that learners form in the online world of education and how such trustworthy relations positively impact learning outcomes.

3. Methodology

The design of our methodology was informed by Weber and Carter’s^[24] qualitative descriptive and grounded theory approach. We adapted their approach to studying the social construction of face-to-face trust to our objective of understanding learners’ social construction (i.e., performances) of trust in the context of online social learning. Our study of online learning addresses learning contexts that include text-based computer-mediated communication (CMC) as one medium for communication. This required that we reconceptualize Weber and Carter’s face-to-face interviewing approach for online interviewing. We drew upon Rubin and Rubin’s^[55] responsive interview model to adapt the face-to-face interview method to online synchronous text-based interviews^[56].

Rubin and Rubin’s^[55] model provides guidelines on how to address the challenges of the disembodied world of text-based computer-mediated communication by structuring the interview around three types of questions: main, probes, and follow-ups that solicit content as well as promote relationship building in non-verbal environments^[55,57,58]. Furthermore, the fluidity and flexibility of the responsive interview model complements the fluidity and flexibility of our conceptualization of learners’ social interactions, their network sociality, and, thereby, facilitates the ongoing adaptation of interview questions to the demands of the context at hand. We used Rubin and Rubin’s^[55] specific guidelines to develop our initial interview questions and to guide the conversations during the actual interviews.

Like Weber and Carter^[24], we focused on the micro-sociological level social interaction as our unit of analysis and used open-ended interviews with learners to gain an “inside” perspective of their interactive, emergent, social performances of trust. Because we were interested in learners’ performances of trust in a text-based computer-mediated online social learning environment, we chose to use an analogous interview method; that is, text-based computer-mediated interviewing^[59]. We selected synchronous online interviewing as it most closely captures the interactive spirit of face-to-face interviewing. Computer-mediated communication’s hybrid quality as an oral and written language makes it “an excellent medium through which to ‘exchange opinions, beliefs, understandings, and judgments in social interaction’^[56]”.

The responsive interview model encourages building rapport with participants as collaborators who, as vested members of the research team, exert greater effort to ensure the quality of the research^[55]. Although we interviewed 30 diverse online learners from different academic institutions who volunteered to take part in this research, they, nonetheless, provided a sociological perspective of the social construction of trust because they

are representative of learners, in general. The sample population was selected as they were in the best position to offer insights and best practices since they were involved in online groups that were working remotely. The first researcher conducted 30 one-hour initial interviews and then 30 half-hour follow-up interviews with each of these online learners.

Insofar as trust is a sensitive topic, we followed Weber and Carter's^[24] lead in adopting snowball sampling to identify prospective participants. The strength of snowball sampling lies in participants' interpersonal relationships which evoke a rapport and, thereby, encourage others' participation in the study. Our data analysis followed the seven-step analytical and theory building process identified by Rubin and Rubin^[55] which mirrors the constant comparative method as explicated by Glaser and Strauss^[60] and advocated within descriptive analysis^[61] and grounded theory^[62]. Our analysis was guided by the findings from the research on trust which acted as "directions along which to look"^[57].

4. Analysis

In the descriptive stage, we performed inductive and deductive analyses, interpretation, and meaning making to identify the concepts, themes, events, examples, names, places, or dates that would help us to develop thick descriptions and themes of learners' performances of trust and how trust shapes their learning^[61,63].

Data analysis began after the first interview rather than waiting until all the data were collected. The rationale for this is that immediate analysis helps "a researcher to identify relevant concepts, follow through on subsequent questions, and listen and observe in more sensitive ways"^[61].

Analysis of the interviews were conducted in three phases: 1) as each interview progressed, we inductively and deductively analyzed learners' responses to explore additional relevant information revealed by the learner during the interview; 2) after each interview, we closely read the learners' responses to judge what emerged of most "significance and interest"^[64] and used this knowledge to update the interview questions, and 3) after all interviews were completed, we revisited learners' thick descriptions to analyze them inductively and deductively for the purpose of interpretation and meaning-making.

This understanding was grounded in previous research on trust. In particular, the analysis was conducted from the lenses of Sztompka's^[23] sociological theory of trust as well as Weber and Carter's^[24] model of trust. We paired descriptive analysis with grounded theory to allow for trust in online social learning to emerge from learners' practices of social interactions and learning^[63]. During grounded theory development, the constant comparative method is used to analyze the themes and concepts extracted during descriptive analysis. We followed this approach. Themes collapsed during axial coding. These "abstracted" themes were then used to formulate theoretical propositions about learners' performances of trust in online social learning and the implications of trust for the quality of their learning. Following Castells^[65], we attempted to communicate "theory by analyzing practice".

We complemented Rubin and Rubin's^[55] analytical process with analytical strategies and followed a consistent approach in analyzing all 60 transcripts (30 initial and 30 follow-up). The first researcher initially carefully read the interview transcripts to identify the "big ideas" which could provide an initial framework for the development of our study's findings^[66]. Special attention was paid to repetition of words, ideas, or concepts throughout and across transcripts that could subsequently shape the study's themes. They were compared to the categories and descriptors emerging from the trust research to determine whether learners were reflecting the literature or shared new thoughts. One limitation of this study is that the number of interviewees may not be sufficient to support the development of theoretical propositions. Insofar as this is an exploratory study, this

limitation is unsurprising and expected.

5. Findings

For the research question, how does trust shape the social relationships that diverse learners form in this context? We have several findings.

Finding 1. When instructors include social learning as a component of an online course, learners are expected to “meet” other learners online, often for the first time, and work with them successfully on a group project, within a specified timespan. From the outset, learners are given a goal: to complete the group assignment for a class grade, within the allotted timeframe. A common goal interdependently links learners. Because learners are meeting online, they often do not have the opportunity for casual encounters such as meeting each other outside class, to have a cup of coffee, or to talk about personal concerns which comprise common ways of sociation in the face-to-face context. Learners shared that they missed these implicit, informal opportunities to build trust that have implications for their “in class” social interactions and learning.

Online, learners must often forego such sociability to immediately work together in order to achieve their goal. Out of necessity or sanctions, they are required to trust that team members will perform their share of the work and do so in a trustworthy manner; that is, in a consistent, reliable, competent, and caring manner. Their goal interdependence requires initial trust, even when learners feel that some team members may be untrustworthy. For example, learners might have noticed that a team member may have performed untrustworthy behaviors on the class online threaded discussion forum; however, they have to bracket this knowledge because they are committed to a common team goal that requires that they work together to accomplish it.

John, a professional in his 30s working in the nonprofit sector who is also studying for an undergraduate degree at a private university, noted that his team members had not behaved trustworthily during the class posts on the online threaded discussion forum. Some of *John’s* team members’ performances online indicated untrustworthy behavior at the beginning of the course, prior to the team assignment. According to John, these team members did not appear to participate fully in class assignments whether it was in an untimely manner or contributions that lacked deep, critical thought. Nonetheless, *John* extended trust to them when they began to work together. However, when this negative foreknowledge was further fueled by additional acts of untrustworthy behavior within the team (e.g., not responding to emails in a timely manner or making any effort to participate in team activities), then their trust was irretrievably broken:

Because the only thing that I knew about them was what I had read in other discussion posts and their writing was not that impressive and they didn’t respond to emails. If I had known them, I would have probably given them the benefit of the doubt, but when all you know of someone is negative trust is breached. (John)

Recounting Neely’s description of performances of trust, we see how important it is for learners to trust each other from the outset to be able to complete their assignment:

Currently I have to trust my classmates in my ... class. The projects where I had to work within a group or a partner there... had to be trust. Trust that your group or partner would pick up where you left off or do their part. I have been lucky to have great partners and group members that I trusted to take care of things and carry their load of the work. Without that trust, we would not have been able to complete the assigned projects. (Neely)

Neely, a professional in her 40 s in the field of instructional design who is also studying for a master’s degree at a public university, felt that she had to trust her team members to facilitate their social interactions

and, hence, social learning. Zoeyu, a graduate learner in her 20 s studying for a doctoral degree at a public university, also felt that she had to trust her team members, but for a different reason: she had to trust them because she was “forced” to do so by the instructor. That is, the instructor created expectations of trustworthy behavior, sanctions for anyone who violated them, and monitored learners’ social interactions to ensure compliance. Zoeyu added that she thought that without the instructor’s expectations, learners would most likely have behaved aggressively:

Yes, we trusted each other but probably because it was forced because you knew the teacher was monitoring the posts. Had it been unmonitored, I’m sure people would have responded more aggressively at times. I am sure technology makes people feel more invincible and freer to respond without the threat of how someone in person might respond. (Zoeyu)

Bay illustrates how moments of sociability are important in meeting the trusting requirements of online learning environments. Specifically, moments of sociability are needed to create personal social interactions that have implications for social learning. Bay is a “type A” task-focused learner but appreciated that other learners may need a personal touch, a sense of community. Bay, therefore, as a leader, “contrived” opportunities to add a personal dimension to online learning and, thereby, create an online community. Bay indicated that it is important to add a personal dimension to online learning because this dimension encourages learners to take risks such as expressing their vulnerabilities. Moreover, it is important to expose vulnerability because, in doing so, learners expose where they are wrong and, thereby, afford others and themselves an opportunity to learn:

I’m a pretty typical Type A kind of personality. I tend to be very goal/task oriented and work very well with folks who are the same way; however, I’ve learned to appreciate that other personality types “need” this type of activity social interaction. I always am sure to contrive some when I’m a leader and participate fully when I’m a participant. I think that many people are afraid of taking risks or being “wrong” so building a sense of community allows them to be vulnerable more so than if it was a “cold” interaction as the online sort often are. (Bay)

Finding 2. Learners, in trust-compromised social learning groups, recounted that the most common breach of trust emerged from failures to communicate effectively, if team members communicated at all. Surprisingly, some learners ignored team members’ efforts to communicate about their shared task, even up to the time that team projects were due. These breaches of trust compromised their social interactions such that learners were either never able to establish communication and social interactions or had to redirect their social interactions among learners who were engaged to complete their tasks. Some learners, in trusting social learning groups, also experienced similar breaches of trust as learners in trust-compromised social learning groups; however, in trusting groups, trust mitigated breaches by providing a lens through which learners viewed these breaches. Specifically, trust allowed learners to view breaches of trust from a perspective that gave other learners the “benefit of the doubt.” In doing so, learners who appeared to breach trust had the opportunity to explain their behavior and to re-engage in social learning.

John recounted a learning experience where his instructor used the Blackboard Learning Management System to assign him to a team with 4–5 learners. Learners were then responsible for completing a group project. Although his instructor assigned 4–5 learners to a group, ultimately only 2 remained. John and his teammates faced communication challenges from the beginning—some learners took a long time to email back. One active team member sent “multiple emails trying to round everyone up.” John was not sure why three team members did not respond but felt “it came down to some excuse” such as that they did not check email, were too busy, or did not understand the requirements. One team member did not communicate until the day

before the project was due. John and his remaining team members informed their instructor about the team's communication issues. The instructor reduced the scope of the project so that two learners could complete the work. John and his partner then notified the non-participating learners that they were no longer members of the group. They did so publicly by posting a notification on the group's discussion board area. Because of the untrustworthy conduct of team members, *John* and his partner felt that they did not "owe" these other three team members in terms of sharing their work and grade. Their obligations were negated by untrustworthy behavior "they left us out to dry":

We sent each other emails and volunteered to do certain sections. ...Some kids took very long to email back. I'm not sure as to why but it probably came down to some excuse. They would say that they hadn't checked their email or that they had been too busy and didn't understand the requirement. If I remember correctly the girl and I ended up doing the project. She emailed the professor and he said it was ok if we did something together and made it a little shorter. One of them [the original team members] didn't contact us until the day before the due date. The other's we told through the discussion board. I remember not going out of our way to let them know; they had not responded to us or participated in the preparation. I hate to think about it that way, but we didn't owe them anything...they left us out to dry. (John)

Faith recounted a story where a team member, Alex, who played a critical role as liaison to the client and as an information resource to the team, suddenly stopped participating in team meetings, meeting with the client, and doing his work. Faith and her team attempted repeatedly to re-engage Alex in team meetings. Although he promised to participate in the team meetings, Alex failed to attend them. The team's social interactions suffered considerably because of *Alex's* repeated breaches of trust:

He was attending the online course sessions and would promise that he would attend the team meetings but then wouldn't show up. It was terrible we were relying on him to keep us in contact with the client...he was our intermediary. He was our connection to the client so he was a key player for the project. So, his absence was sorely felt. We needed feedback from the client so that we could generate a product that met their needs. Now that was missing. It would have looked bad if we sent someone else or stopped talking to the client all of a sudden. At first, his missing one or two meetings was okay, we just kept on working on ongoing products. But once we came to a junction where we needed client input it became a problem. The client had been so faithful in actively participating in the project it wouldn't have been right for us to suddenly disappear. It was frustrating. He also had some contributions he was supposed to submit for the project. We had to pick up the slack on that too the work load grew exponentially. UGH!!! He had a section that he was supposed to have completed before he disappeared. We had also divided up the projects into section he had a section. Let me remind you that he was the one who insisted on our doing the project. (Faith)

In contrast, Saoirse and Toni, graduate learners in her 20 s studying for a master's degree at a public university, expressed appreciation for how their groups managed breaches of trust. Because they were members of trusting teams, they had formed a more resilient and flexible trust that made it easier for them to "overlook" and understand breaches of trust. Toni explained: "Because we knew each other I think it was the opposite we were more relaxed about breaches of trust. We knew that we were all very busy, so we allowed room for more of a lax behavior." Saoirse added that competing personal demands sometimes distracted learners and prevented them from engaging in ongoing communication; however, this was not a problem as they "always felt a great sense of balance and understanding" for each other:

I also found it interesting that there would be days here and there when I could not find the time to participate in our collaboration, or one of the other students couldn't touch in for a day or two, but we

always felt a great sense of balance and understanding for one another's "other lives" outside of our online project :) it was one of the most authentic learning experiences I've had with this program. It was challenging, time consuming, and very rewarding. (Saoirse)

Finding 3. Learners, in general, reached out to trusted members of their teams to learn what they needed to know to complete their team assignments, regardless of whether they felt their team members were competent or not and whether they were in trusting teams or trust-compromised teams. Neely explained how she felt lost in a specific class and how her classmates and the instructor helped her to learn the material and complete her assignments. Neely's team members' performances of trust through consistent, competent learning acts confirmed Neely's confidence and trust in her team members' abilities. However, Neely also trusted less able peers. Neely pointed out that some of her peer learning opportunities did not necessarily involve more able peers, but rather simply peers who may have a different perspective on the learning material and can communicate about the learning material using "layman" language. Neely pointed out that the discrepancy in the level of knowledge and understanding between instructors and first-time learners may be so great that they struggle to communicate and understand each other. For this reason, peers, even less able peers, may be more helpful in trying to understand course material:

It has been my experience in teaching and in school that usually if one person has a question on a topic, others have the same, or similar, question. Learning from someone on your own level makes you feel more confident. I'm not really sure how to explain it properly. Sometimes instructors use big words or just repeat things out of the textbook. That doesn't help. When you learn from another classmate, it not only puts things in laymen terms but it helps both people understand the concept. I just think they were able to look at it from a different point-of-view. Instructors sometimes forget that the information might be "second hat" for them, but new to the students. I'm not sure "confident" is the right word. I feel the most "confident" when it comes straight from the instructor. I can't seem to find the right word. Maybe it's just that I feel comfortable learning from my peers at times. If it wasn't for my classmates in this current class, and my instructor, I don't know where I would be. I am so lost in the "course" world! Currently I have to trust my classmates in my class. I have to trust their instincts and try what they say to try because most of them know more than me. But I have worked with one lady that I really trusted to get things done. She was always on time and she delivered quality material. I trust them a lot because what they say works. (Neely)

Saoirse relayed a story regarding reaching out to competent, trusting peers. Her story highlights the importance of trust in selecting whom you turn to for help in social learning because when you reach out to others you need to be able to collaborate with learners who are reliable and can do their work in a competent manner. Reaching out to trustworthy team members is important to ensure that you receive the necessary help:

I knew I could rely on both of them to carry their weight and contribute positively to our big research project. I took a chance by doing that project with the other two students. We had an option to do it alone. I was so grateful to have help from two wonderfully competent and very informative classmates. At the end of our term, we provided reflections on our experiences. I was amazed how many people in our class wished they had collaborated with other students, how frustrated and lonely and isolated they felt trying to navigate such a big research project alone. This really solidified my trust (and joy) in regards to having such a great collaborative experience. (Saoirse)

Kim, a graduate learner in her 20 s studying for a master's degree at a private university, and her team mate chose a project that leveraged their individual expertise and, thereby, created a circle of trust and help between them. Kim and her teammate had completely different backgrounds, studying two different majors,

in two different colleges. This difference initially made it difficult for them to communicate with each other to find shared interests. However, they reflected on this difference and chose a project where each could contribute. In this sense, they turned to each other to learn what they needed to know:

My teammate was doing architecture and I was doing biology, it was difficult trying to explain to him some things. We were able to get a research topic which cut across all of our professions, this really helped in terms of material and expert knowledge. (Kim)

Sam, a technology professional in his 30 s who is also studying for a master's degree at a for profit university, recounted how he and his fellow learners turned to their individual networks to support them in their learning. However, whereas Sam turned to friends with subject matter expertise outside class to help him, some of his classmates turned to a network they had created within the same course for support on both the assignments and tests. Specifically, Sam disclosed that learners, who already knew each other from previous encounters, continued to network together on assignments and tests, either in person or over the phone. Sam became aware of this collaboration from learners' posts and private emails that were also sent to him:

I am sure some of those students knew each other outside that class so they shared notes. Personally, I was very detached in the course. I wanted credit and unless I had to communicate I did not. ... I wanted it simple; I had a job. ... Some learners did tests together over the phone. How did you know this? Well, we did email each other after exams at times asking how each other did or after each one took the exam. One would say what the exam was like and they did well because another classmate completed it and shared the information or they did it together on campus. (Sam)

In addition to turning to his friends for help, Sam also chose to utilize online resources to supplement his learning. He found MIT open courseware and academic videos on YouTube especially helpful because they offered Sam the opportunity to observe how different teachers taught the same content and, therefore, to find which teacher taught him the material most effectively. He found that although different teachers used the same technology (e.g., video), they taught differently—they taught in a manner that helped him to understand the material. MIT open courseware and YouTube videos became more trustworthy resources for Sam than his course, instructor, or classmates:

I referenced other sources for my solutions MIT open courseware and YouTube were the best options. You can find the topic you need and get the best explanations, if you don't understand one teacher there are others that can explain it differently. I had "subject matter" friends if it got bad and we would meet. But mostly MIT courseware and YouTube. So, for better or worse we find a way to learn what we have too. (Sam)

Sandy, a professional in his 30 s in the field of technology who recently completed an undergraduate degree at a public university, also used online resources, but he did so to confirm what other learners said and, thereby, build trust in them:

I'm under the impression that you can learn a little something from everyone. Do I place total trust in what students have told me no. I would much rather look up and confirm what people say, do my due diligence before putting total trust in a student. (Sandy).

6. Implications

The data from the initial and follow-up interviews with the same learners revealed learners' interpretations of performances of trust among learners in the context of online social learning. In the tradition of qualitative research, extensive samples of learners' quotations are included in this paper. By referring to learners' words, the researchers hope to communicate the interpretation of realities experienced by the learners in the learning

contexts studied.

Our first finding is that an overwhelming majority (90%) of learners from trusting and trust-compromised learning teams indicated that the scope of online team assignments created task interdependence among team members such that learners were required to trust each other. They had to trust each other to complete their individual work as a prerequisite to completing the team's assignment. Learners added that teamwork obligated them to trust others regardless of whether they knew that their teammates were trustworthy or untrustworthy.

The second main finding is that all learners reported that they had experienced breaches of trust at some point during their online social learning experiences. Learners in trusting learning teams were able to reconcile from such breaches of trust because they had constructed a more resilient, personal type of trust, strengthened by ongoing performances of trust. In addition, violators presented "acceptable explanations" for their breaches of trust, ceased their untrustworthy behaviors, and henceforth engaged in trustworthy behaviors. Together, the type of trust learners developed in trusting learning teams, along with violators' efforts to rectify their untrustworthy behavior, facilitated the reconstruction of trust among members of trusting learning teams. Conversely, learners in trust-compromised learning teams were unable to do so because their trust lacked a resilient and personal quality. Furthermore, violators in these teams persisted in their untrustworthy ways, preventing, or adversely mediating online learning social interactions as well as compromising the success and learning outcomes of their teams.

The third finding is that online learners tend to reach out to most perceived trusted members of their groups in the class to successfully complete their team assignments, regardless of whether they felt their team members were competent or not and whether they were in trust-compromised teams. Overall, all learners recognized that they needed help to complete their individual tasks and turned to trustworthy sources among their personal networks to provide this help. Of these, all members of trusting learning teams and 60% of the members of trust-compromised learning teams reached out to trustworthy members of their teams. The remaining learners in trust-compromised learning teams turned to members within their personal networks (20%) or consulted online resources (20%), whom they deemed trustworthy, to gain the necessary information or understandings to complete their tasks.

Collectively, the findings and interpretations for the research question reflect the practice of learners' social theory of trust. In social learning, learning is enacted through social interaction that is shaped by the academic environment, learners' current social interactions, and the design of the learning task. The culture of trust embedded in the academic environment acts as an agent of socialization to encourage and, at times, coerce, learners to trust others even if they appear to be untrustworthy. The friendships that learners develop in academia act as additional agents of socialization where learners develop trusting, intimate relations that facilitate risk-taking necessary in effective social learning.

Inclusive learning communities and cohorts promote trusting friendships where each member is focused on being task-oriented and efficient, while also enhancing and maintaining strong relationships.^[67] In their absence, learners found themselves trying to develop friendship relations while at the same time learning collaboratively for the first time. Learners in trusting learning teams were able to establish social relations characterized by trust, even in the presence of breaches of trust. Learners in trust-compromised learning teams were plagued by breaches of trust that debilitated their teams.

Nonetheless, all learners recognized that they were interdependently bound to complete their learning tasks. Depending on whether they were in trusting or trust-compromised learning teams, learners reached out to members of their teams, themselves, friends outside the course, or the Internet to provide the necessary knowledge, skills, and support to complete their tasks. Learners in trusting learning teams trusted their team

members to provide competent, reliable, caring help. Lacking trust in their team members, learners in trust-compromised teams had to turn to themselves or others outside their teams for help.

Overall, regarding policy making and best practices for educational administrators, this study's learners' stories suggest the need to consider resiliency and moral constructs when explaining their performances of trust as well as the implications of such performances in the context of social learning. Learners recognized that human beings "are fundamentally social creatures and human interaction is fundamentally shaped by moral concerns."^[68] Learners recognized that they possessed different understandings of morality. They needed to negotiate a mutual understanding of what moral codes would shape their performances of trust and the implications of trusting relations in teams.

The model of trust shows that the trustor's trustfulness shapes the decision to trust, the trustee's reflected trustworthiness, and the culture of trust that pervades the world of the trustor and trustee. The trustor's trustfulness is shaped by a psychological predisposition to trust. The reflected trustworthiness of the trustee is the relational component of the trust decision and is formed by the interactions among the trustee, the trustor, and anyone else involved in the trust decision. The trustor's trustworthiness is based on appearance, performance of trust, and reputation of trust. Trust decisions are also informed by the cultural context in which they are made and the factors that shape the cultural context. These factors are reflected in the factors that embody relational trust.

7. Limitations and future research

The expected or potential limitations emerged as realities during the implementation of this study. However, any negative consequences were mediated with appropriate strategies. For example, a few learners initially struggled to explain their understanding of trust and to recall its role in their online social learning experiences. At times, conversational prompts from the interviewer resolved these struggles. At other times, learners were only able to answer some questions in general or not answer at all.

This study was based on learners' interpretation of the social construction of trust in the context of their online social learning experiences. Individual learners became representatives of online learners in general. Therefore, a prudent suggestion for further research is to study several teams of learners to "triangulate" their interpretations of their online trusting learning experiences and to determine if they are consistent with each other and the research findings of this study. Considering learners' interpretations of the prevalence of social loafing, it is highly likely that studying whole teams will also reveal the behaviors and perspectives of social loafers as well. Since social loafing has such a debilitating effect on social learning, insights into social loafing may provide clues as to why it occurs and how it may be remedied or prevented.

In addition, such research could also benefit from sociological research on morality, and how it shapes trusting relations and trusting social orders. Although the study of morality has been "neglected" for decades by sociology^[68] and other scholars^[69,70], currently there is a "revival of the 'sociology of morality'" which will have "something vital to add to the conversation" on moral phenomena and, by extension, trust^[68].

8. Conclusion

The purpose of this study was to contribute to the conversation on what could potentially make diverse online learning teams more satisfying and successful through the development of trust, which is often a consequence of feeling included, treated fairly, and belonging. This study was contextualized in online learning that includes computer-mediated textual communication as one of its communication media. We focused on exploring the emerging, interactive, social construction of trust from the learners' point of view within teams

using a qualitative, open-ended interviewing approach with snowball sampling to identify participants.

The findings and interpretations reveal that the scope of online group assignments create task interdependence among homogeneous and heterogeneous team members such that learners are obligated to trust each other. It is also clear that online learners in trusting learning teams can and do reconcile breaches of trust by presenting “acceptable explanations” for their breaches of trust, by being resilient, having effective communication, and by focusing on their common objective of performing well. Finally, learners tend to reach out to most trusted colleagues in their groups or outside networks to successfully complete their team assignments.

Author contributions

Conceptualization, MEK; methodology, MEK; validation, MEK and BGM; formal analysis, MEK and BGM; investigation, MEK; resources, MEK and BGM; data curation, MEK; writing—original draft preparation, MEK; writing—review and editing, MEK and BGM; visualization, MEK and BGM; supervision, MEK and BGM; project administration, MEK and BGM; funding acquisition, MEK. All authors have read and agreed to the published version of the manuscript.

Conflict of interest

The authors declare no conflict of interest.

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