



# Advancing Education in Muslim Societies

Mapping the Terrain Report  
2019 - 2020

Mapping the Terrain



ADVANCING EDUCATION  
IN MUSLIM SOCIETIES



# **Advancing Education in Muslim Societies**

## **Mapping the Terrain Study**

### **2019 - 2020 Report**

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## **International Institute of Islamic Thought**

Advancing Education in Muslim Societies (AEMS) is an umbrella initiative of the International Institute of Islamic Thought (IIIT), a premier international organization focused on providing a platform for the unique perspective of Muslim thinkers, scholars, and practitioners in the humanities and social sciences. For almost 40 years, IIIT has been a voice for moderation, diversity, and renewal in Islamic thought, especially in building the capacity of communities to address their common global and local challenges. Today, IIIT is the voice of the Muslim intellectual tradition in the West and a champion for scholarship, knowledge, and learning in Muslim societies across the world.

IIIT was established in 1981 as a U.S. non-profit 501(c) (3) nondenominational organization. Its headquarters are in Herndon, Virginia, in the suburbs of Washington, DC.

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## Executive Summary

Our role is to widen the field of discussion, not to set limits in accord with the prevailing authority.

—Said, 2003, p. xxiii

This report shares the main results of the second study in the Mapping the Terrain research started in 2018. It presents an exploration of values and competencies in communities of interest, namely Muslim-majority societies with focus on students in secondary schools and higher education as well as their teachers and university instructors (see map of participating countries in Appendix C). Nearly 20,000 participants took part in the paper and pencil surveys. The participants were recruited based on permissions and approvals of ministries of education in some locations and directly from private school principals and supervisors in others. Convenience sampling was used based on granted access to schools and Muslim-majority communities and the districts where they may reside.

The goals of the study were multiple and included expanding the research agenda in societies of interest to, in Said's (2003) words, widen the discussion based on empirical and field-based results. The aim was also to highlight the importance of human development as one of the goals for reform of education. A human development framework was used, based on theoretical underpinning and previous research investigating pathways for prosperous and highly conscious states of existence.

Drawing from various disciplines and adopting a multidisciplinary approach to research, the study also identifies a set of values and competencies necessary for transformation as well as those that may be critical for transition from one state of being to another. Some of these values and competencies—for example, empathy and its importance in



predicting involvement in the community and the ability to forgive were included in the 2018–2019 study and showed promise in the results.

It is suggested, based on a thorough review of the literature, that values in this study may be grouped into three sets of competencies identified as critical for transformation: (a) open-mindedness (adaptability and ability to think critically), (b) responsibility (as part of a social responsibility orientation), and (c) a sense of a collaborative collective (taking the collective to a collaborative state). Those three areas require the progression of the individual and the collective on the developmental spectrum, starting from the basic egocentric state, to the ethnocentric, to the worldly, including a worldview of Tawhīd and involving competencies such as meaning making, perceived hope, problem-solving, self-regulation, and a sense of belonging.

This study sampled mostly youth who are younger than 18 (56%), followed by those ages 18–24 (28%) across countries. The participating sample is also highly educated among the adults, with most schoolteachers (72%) holding a bachelor's or master's degree and most university instructors (75%) holding master's or doctoral degrees. The structural equation models (SEM) for each category reveal interesting prediction pathways that tell the story of the general populations in one model.

They also present the stories of students and educators separately with focus on needed traits to empower the various groups. The hypothesized SEMs were also designed based on the results of the 2018–2019 study and a thorough literature review on possible links between the constructs as they impact youth and adults. The results suggest the following:

- Measure reliabilities were high, suggesting well performing translations and adaptation of the scales in the target Muslim-majority societies.
- Most mediation effects among constructs in any specific model were partial. For example, in the instructor's model, both emotion regulation and self-regulation partially mediated the effects of meaning making and gratitude on the outcome variables teacher self-efficacy and life satisfaction.
- In the general model, the collectivistic orientation partially mediated the effects of empathy and meaning making on gratitude. The analysis also suggested that forgiveness was not predicted as an outcome by our general and student models as we had predicted.
- Gratitude was predicted by empathy, meaning making, and collectivistic orientation in the general model. On the other hand, gratitude positively predicted instructors' self-efficacy and life satisfaction.
- Empathy in the student model was positively predicted by problem-solving, emotion regulation, and sense of belonging.
- Participants were higher on the collective orientation than the individualistic orientation.
- There were no significant differences on the constructs based on demographic variables such as gender and age.

The study results have implications for researchers, educators, and policy makers alike.

Recommendations regarding teaching skills and content related to open-mindedness, responsibility (whether personal or social), and a sense of collective are all important to address as part of a larger curriculum addressing the human development aspects of students' lives whether in secondary or higher education. Each group with its constructs gives further support for the need to intentionally emphasize competencies such as problem-solving, self-regulation, and gratitude, to name a few. The study results also suggest that forgiveness education should be taught and modeled even more in the curriculum in secondary and higher education settings as it does not come intuitively.

Of special interest here is the result on the individualistic versus collectivistic measure examined among all target groups. The results suggest (and after factor analysis) that the participants in all groups and all countries tended toward collective rather than individualistic orientations, with the secondary students and teachers having slightly higher scores than the university students and instructors. This confirms the assumption that non-Western societies (at least in our sample) are more collective. Further research is needed to understand this cultural construct and ways it may be expressed or promoted as a collaborative model of a collective.

The study also has limitations because the sampling of the groups was not random in most of the locations, meaning that researchers targeted Muslim-majority schools and universities and focused on locations where access was granted. The study also is not weighted, and the samples were not equal in all locations. For example, 15% of the data came from India, followed by 11% , Bosnia, and the smallest sample was from the United

States, at 1% of the sample. It is also apparent that despite the rigor used in the translation of the surveys to more than 10 languages and multiple rounds of back translations, a few did not perform well. Finally, most countries were able to wrap up the data collection in March 2020 before the initial lockdowns due to the pandemic. Only a few locations such as the United States and Malaysia carried through data collection in May and June.

Whether the pandemic impacted the results and participants' views on these life-related skills is yet to be discovered. A follow-up study investigating that question and others stemming from the results is needed.

# 1. The Study

## Background

Since its launching in the summer of 2018, the Mapping the Terrain empirical study took on the mission to contribute field-based knowledge on advancing education in Muslim-majority societies (as the core AEMS initiative). As the design and framework for the study emerged, it was clear that it fills a neglected area of research in human development and growth in contexts such as education settings, whether on the levels of formal and nonformal/informal education, curricula, and/ or policy. Originally identified as grounded in “the third space” with focus on non-academic competencies to complement the first space (education for employment) and the second space (education for citizenship), the third space was further operationalized to contain measurable constructs (Nasser et al., 2019) that were examined in the 2018–2019 study.

An examination of previous research led to identification of the areas of social responsibility and the four pillars of education, especially the “learning to be” pillar, which became the focus of the study’s design in addition to the learning to know, learning to do, and learning to live together pillars, which are just as important (Delors et al., 1996). Even though we focus on the learning to be pillar, this study has implications for all the other pillars of a rounded educated individual. The study’s rationale, in its current reiteration, is expressed by Schleicher’s (2019) idea that “the future is about pairing the artificial intelligence of computers with the cognitive, social and emotional skills and values of humans” (p. 3). As we designed the study, the second half of the statement became the leading focus.

The work proceeded from a strong belief in the importance of a comprehensive theoretical design—one allowing an examination of ways to improve human lives as a necessary condition to advance education. Countries and their governments emphasizing only academic scores and standardized testing policies are losing the battle on the social, emotional, and values needed to guide youth and improve their lives (Kearns, 2010). This study provides field-based knowledge on essential competencies needed to enhance the human development and the potential to improve the lives of individuals and the collective in Muslim-majority societies.

The empirical research of the Mapping the Terrain agenda is unique and groundbreaking because it is the first multisite and large-scale study providing field-based evidence on pathways for growth and improving lives of the next generations in Muslim-majority societies and beyond, taking into account social, and religious aspects of the target communities. The first exploratory study in 2018–2019 included multiple constructs that directly related to this psychosocial approach to education and development, among them community mindedness and empathy.

Other competencies and values were selected then because of their connections and relevance to youth, including sense of belonging, religiosity, and self-efficacy. Additional values were examined because they are central to Islamic values and teachings, for example, forgiveness and moral reasoning. The survey provided new knowledge on attitudes and perceptions among youth and adults alike. The design of the study took more than six months and included the convening of a research advisory panel for the purpose of outlining the objectives, conceptual framework, and methods of the study (Nasser et al., 2019). The objectives of the empirical research were identified as follows:

1. Share new knowledge that is evidence based through surveying attitudes and perceptions using quantitative research methods.
2. Bring the voices of researchers, educators, and youths in Muslim societies to the academic arenas in the United States and other Western and non-Western countries.
3. Contribute to recommendations on reform of education at the national and international levels, such as in funding priorities.
4. Explore sensitive measures of human development in Muslim communities and locations.
5. Build partners and local researchers' capacities (or example, providing training on sampling methods and ethical use of human subjects).
6. Utilize evidence-based knowledge accumulated as a resource for the reform of educational agendas in Muslim-majority societies, thus contributing to the design and implementation of learning standards, policies, pedagogy, and curriculum.
7. Highlight the critical role/s the identified values and skills play in promoting and increasing the ability to learn, and achieve at the school and university levels.

The approach in this study aligns with the objectives of the AEMS initiative and provides a broader and a more comprehensive view of education reform. Mapping the Terrain responds to three objectives of the AEMS initiative:

- Recommends policies that engage governments, nongovernmental organizations, and universities, among others, on ways to transform education systems and advance people's states of being so they can participate proactively in building their societies and a civilization of peace and prosperity for all.
- Advocates for a developmental approach that is relevant to Muslim youths, schools, universities, families, and communities at large.
- Contributes to preparing a new generation of Muslim intellectuals, educators, and academics for research and teaching careers engaged with AEMS's major initiatives.

Finally, the empirical research expands the appeal of educational studies to the social, cultural, and policy areas, thus potentially becoming relevant to other components of AEMS, such as curriculum, leadership, and pedagogy.



## Rationale

The Islamic theory of knowledge considers the means of gaining knowledge to be reason, perception, and experiment.

—al Alwani (1989, p. 1)

When addressing reform of education, it is true that most of the effort goes into improving schooling and promoting advancement within educational institutions of all types. But this study is a reminder of the alternatives to the ongoing international discourse evaluating educational systems based primarily on academic achievements and scores on international assessments.

Behind this discourse are the same neoliberal forces flooding the education market in so many countries with one-size-fits-all policies and pro-market agendas driven by major funders and special interest groups (Carroll & Jarvis, 2015). The selection of the human development model to ground this study is a result of thorough reviews of the achievement literature and an in-depth investigation of a model that takes a more comprehensive and inclusive approach to reform and highlights certain virtues and skills worth the investment in to benefit the psychosocial aspects of learning and growth.

Development cannot and should not be forced upon the individual. Rather, it requires preparing the right environment and conditions for growth to naturally occur. The research agenda we pursue conveys the message that development should be part of the conversation on reform in the Global South as it has not been the case thus far. Human development is not just as an index but an authentic and a promising framework that includes localized knowledge as well as the general learning environments including socioemotional, religious, and cultural values combined from Western and non-Western wisdom. It also provides a space for dialogue and intellectual debates on aspects of human development beyond education. The wide dissemination of the empirical results and the availability of the data sets

certainly enhances these conversations and the implications for policy, curriculum, and pedagogy.

The advancement of human values and competencies such as those already mentioned contribute to the body of literature on social change and educational transformation. In addition, it adds to the area of social cohesion, defined by Fonseca et al. (2019) as “the ongoing process of developing well-being, sense of belonging, and voluntary social participation of the members of society, while developing communities that tolerate and promote a multiplicity of values and cultures and granting at the same time equal rights and opportunities in society” (p. 17). The study’s focus promotes the sense of responsibility required for social development (Yob, 2016). This rationale is articulated well by UNESCO (2015) as the “respect for life and human dignity, equal rights and social justice, cultural and social diversity, and a sense of human solidarity and shared responsibility for our common future” (p. 14). Promoting such values and competencies in educational settings, the study hypothesizes, inculcates a heightened sense of responsibility in growing young adults.

The main results published in Mapping the Terrain 2018–2019 validated moving with the study’s direction and focus. The following sums up the results of the first study regarding the constructs investigated (more information is available at <https://iiit.org/en/resources/>):

Empathy was found to be a key predictor of forgiveness and community mindedness as outcome variables in the analysis. This means that the more empathetic one is, the more forgiving and community minded. Overall, there were no significant differences based on demographic variables such as gender, age, and education. This is consistent with research among similar populations where forgiveness was not different based on gender, age, and education (Nasser & Abu-Nimer, 2012).

## 2. Conceptual Framework

The bulk of classical theories addressing human development, such as reasoning about right and wrong, interpersonal interactions, and learning, presents an unvaried progression in the physical, cognitive, and socioemotional domains, while the reality is that development of the individual is filled with twists and turns. Nevertheless, the goal of such theories is to contribute to our understanding of conditions leading eventually to better lives, prosperity, and welfare for all. The Spiral Dynamics (SD) model articulated by Beck & Cowan (1996, 2006) and utilized in the 2018–2019 Mapping the Terrain study is a comprehensive model that brings together the ideas of multiple scholars who built on each other's work including Graves (1970) and Wilber (2006). The model indeed explains the changes that occur to individuals and groups moving back and forth on the spiral of life and thus attests to the turns and twists in development.

It is also one of the few models that sees life conditions as critical for the flexible progression on the states of consciousness as identified in the model. According to the approach, a state of egocentrism (one of the early states in the model) is not necessarily judged as bad or good, but it is sometimes where people find themselves not necessarily by choice but because of barriers (Beck et al., 2018). This explains the color-coding system of the spiral where no color is better than the other, but people find themselves at different states based on happenings around them.

Contrary to the approach, our hypothesis is that humans aspire to go higher on the spiral for humanity to survive (see the list of states of consciousness in Table 1). This is supported by scholars who emphasize the need for empathetic people who are caring (Adler, 1979; Noddings, 2012) to lead the world and reach higher states of being such as wordly.

**Table 1 Modified States of Consciousness (Based on Beck & Cowan, 1996)**

State of Consciousness	Description
Egocentric	Tribal and clannish state of being—the focus is on the survival of the family/inner group and the extended networks related to those. The model also specifies the concerns in this state with basic human needs.
Ethnocentric	The state of being, here, is focused on national identity and groups being stuck on the idea that nationalism solves all problems (which was a priority in the 20th century). This state proved to be not enough as the world got smaller and more connected because of globalization, technology, and most importantly social media.
Worldly	In secular terms, worldly describes a state of consciousness that is inclusive and is concerned with the welfare of others as well as self and social networks. This state aligns with the idea and belief of a shared collective among humans in the global community. It is also a call to renew spirituality.
Tawhīd	Moving away from egocentrism, ethnocentrism to worldly is what Tawhīd as a working definition and state of being is all about. It fits well with the “post integral” state described by Wilber (2006) as when someone realizes oneness. In this model, Tawhīd is the highest state of existence without minimizing the importance of it in each category. Tawhīd is at the core of religious beliefs of Muslims and other religious groups and manifestations.

When examining the SD model closely, we see that it emphasizes the existence of “containers” where we hold our value systems that may conflict with other worldviews (Graves, 1970) that are important to identify in systems change. According to Maalouf and Beck (2014), “The central thesis behind this framework is that external approaches designed to improve the human condition are faulted unless they include the essential steps and stages in interior social development” (p. x). The present study uses the spiral approach to unfold some of the aspects of social and interpersonal development to share the results of this exploration of values and competencies with the larger community of researchers, policy leaders, and practitioners. We use the states of consciousness model to highlight the developmental nature of this conceptual framework and to organize the various constructs in a meaningful way.

The adapted version of the SD model used in the current study and labeled as the Spiral Progression (SP) approach explores three states of consciousness that emerged in the 2018–2019 study—egocentrism, ethnocentrism, and worldly—out of the original nine presented in the model (Cheema, 2018). The selection of these three is deemed appropriate for the context we examine and the objectives of this study because we are not trying to prove or evaluate the model but use it as an organizing framework for the constructs we examine. It provides a unique look and a more meaningful paradigm for human development among Muslim-majority societies that have some unique aspects as well as universal ones. The three identified states fit within the social, cultural, and anthropological literature on the target societies, especially those that are more tribal and concerned with the fulfillment of the basic human needs such as food, shelter, and security. Nevertheless, according to Cole (1992) Muslim societies are not to be lumped into stereotypical social and cultural structures but to be viewed more as diverse and colorful.

Thus, we highlight the importance of shying away from a one-size-fits-all approach. In classical developmental theories (Crain, 1992), the three states of consciousness are milestones in youth development in all domains, moving from self-centeredness to caring for others and their welfare. Piaget and Inhelder (1969), Erikson (1993), and Kohlberg (1984) are a few of the classical theorists suggesting this developmental sequence. Erikson's (1993) identity vs. role confusion stage describes this process best when he emphasizes that in adolescence (ages 12–18) the main developmental task and struggle is developing a sense of self, especially answering the question who am I? According to the theory, youth who are successful at this stage have a strong sense of identity and remain true to their beliefs and values (Mooney, 2013). The focus on secondary and higher education students allows for an examination of the unique characteristics and positions of youth in Muslim communities. The new knowledge will most likely vary across the different locations, but in this report, we start the conversation by presenting the general results of our inquiry. The following delves deeper into the main states as we utilize them in the study and is followed by the definitions of the main constructs.

## **States of Consciousness**

The modified SP approach includes the main states listed in Table 1 and illustrated in Figure 1. These states were included in multiple theories such as Graves (1970), Kohlberg (1984), Wilber (2006), and Beck and Cowan (1996, 2006). Here, we selected the ones that align with our framework and populations of interest. The essence of each is similar, as they all describe a progression from the body to the mind and a state of higher transcendence of the spirit that we identify as the worldly and Tawhīd. These states are not static and are not stages but instead represent a dynamic process and a worldview that includes value systems. They are also interrelated, so one can find a sense of a collective in the egocentric

and a sense of egocentric in the ethnocentric and so forth. Tawhīd in our study is also not a single state or a stage but exists in all with an expansion of its meaning in higher states of existence. This list is also not inclusive and may be adapted based on research and analysis of choice.

### *The Egocentric*

Egocentrism is a term and a developmental stage that was addressed in classical theories such as in Piaget and Inhelder (1969) and Freud (1923). Babies are born egocentric because they rely on others to satisfy their basic human needs. The developmental theories assume that as individuals mature physically, emotionally, and cognitively they move away from the egocentric state to higher states of maturity, consciousness, and being. However, what happens when people cannot get their basic needs met because of hard and changing circumstances such as conflicts, poverty, and other needs? According to the Spiral Dynamics model (Beck & Cowan, 2006), life conditions can keep someone in the egocentric state and there is nothing wrong with that because people will prioritize self, family, and clan over the community at large when needed. But this state should not be a permanent condition, and individuals and groups are empowered and have the potential to move up the spiral when acquiring and owning certain dispositions that we will be expanding on later.

### *The Ethnocentric*

Because the egocentric state may be exploitive (serve the clan mentality), moving to the next state of consciousness focuses on the sociocentric needs of groups and individuals (Beck et al., 2018). It is also characterized by fitting in with the group needs. We label this state as the ethnocentric to describe the main goals of serving the common good as well as for economic stability and gains. It is also based on Wilber's (2006) articulation of the states in the integral model, in which there are three states of consciousness— the egocentric, the ethnocentric, and

the world centric. These are parallel to the pre-conventional-conventional-post conventional stages in Kohlberg's (1984) moral reasoning theory. The difference is that Wilber (2006) along with Beck and Cowan (1996) advocated for states rather than stages as changing ways of being. Though we do not judge this state or others, it is where people and groups are in many areas of the Muslim world, and the global pandemic and its vaccination campaigns and access illustrate this state of consciousness. Of course, the pandemic is temporary and will, for sure, trigger other states as time goes by.

### *The Worldly*

Using our Spiral Progression (SP) approach to convey the importance of the twists and turns in development especially in fragile contexts such as in some of our target populations. In the adaptation, we labeled the holistic/global views state in the spiral dynamics model (Beck & Cowan, 2006) as worldly, which also aligns with Wilber's articulation (2006) that moral development tends to move from "me" (egocentric) to "us" (ethnocentric) to "all of us" (worldly)—a good example of the unfolding waves of consciousness (p. 34). Our model takes a step further by emphasizing the "beyond us" state as a higher goal in the developmental trajectory. Regardless of the label, the worldly state is characterized by a strong sense of a collective within an integrated system. In Beck and Cowan's words (2006), "The self is part of a larger, conscious, spiritual whole that also serves self and global (and whole-spiral) networking is seen as routine" (p. 287). Worldly, here, describes the earthly and more global being, while we added to that a state that may also exist within the worldly and labeled as Tawhīd to express the religious and spiritual worldview and its importance to Muslims.

In the worldly state, the world requires a collaborative global effort to address the complexities of modern life. Again, an example of this need



is rolling out right now with the effort to initiate global vaccination plans because of the Coronavirus pandemic. Rich countries may get the vaccines first, but they need the entire world to do the same to stop the spread of Covid-19, which will not happen without the collaboration among them, as collectives, and individuals. The most important contribution of this state is that it provides a macro view on all the states of the spiral and adds the spiritual aspects to it. On the community level (the collective), this thinking allows “community leaders” to “see new levels of interaction—both on the surface and below—they have not detected before” (Beck & Cowan, 2006, p. 292).

This state also complements earlier work in developmental psychology and aligns with third force psychology, especially Adler’s (1992) view that growth is a process of making larger wholes and collecting the pieces together. It is about the bringing together of the mind and body. It is not complete, though, because it is missing the spirit and the cosmic strength and power of one’s belief in one God and his oneness. Nevertheless, this state brings people together in a collaborative way and highlights that as the essence of oneness. The collaboration is the entry point and needed life condition, and as such it falls under this state. In addition, we added sense of belonging to this category as a variable to illustrate the importance of sense of community and group in this state.

### *Tawhīd*

In the modified SP approach, we adopted God’s oneness (Tawhīd) as the highest state of consciousness one can reach on the developmental spectrum, viewed as a separate state or part of the worldly. More specifically, we expanded the literal interpretation of the oneness of God to a broader and more inclusive view of this state of being. In fact, we use a working definition of Tawhīd without delving into theological interpretations (e.g., jurisprudence). For example, some

in the Muslim world believe in Tawhīd as the basic premise of the one God belief system, while others view it as a more in-depth and a more complex revelation of the oneness of God that applies to monotheism and the unity of all of God's creations. Tawhīd is not just a state of being but is at the heart of every state of consciousness in the Muslim mind, but what differs on the trajectory is the understanding of Tawhīd. This means that the understanding of it may differ from someone in the state of egocentric versus another in the worldly state.

Our view draws on the work of philosophers and scholars who elaborated on Tawhīd not only to describe God as the creator but also as the universal power that enables humans and creatures to live in harmony with self, others, and their surroundings (Al Faruqi, 2000; Aslan, 2011). According to Al Faruqi (2000), Tawhīd is a worldview that provides the bases for Islamic civilization and the foundation for all other principles of Islam. In fact, it is the view of reality, time and space, and human history. It is based on the duality of reality, God and non-God, creator and creature. Here we focus on the creature, which includes “all creatures, the world of things, plants and animals, humans . . . and all their heaven and becoming since they came into being” (p. 2).

The Tawhīd state may be the ultimate for devout Muslims, but it is not exclusive to Muslim believers, as it holds relevance for individuals from other religions and convictions as well. A person's understanding of Tawhīd and the depth of its manifestation may, in fact, go through a developmental process from the basic states of consciousness (the tribal and egocentric) to the highest in the model (the worldly) and beyond to incorporate a universal cosmic consciousness where the only distinction with clear boundaries is between the creator and the creation. Our version of the model relies on the initial premise that values may be considered innate and instinctive qualities and may not require any afterlife incentives to be expressed in behaviors toward the creations—our fellow humans

and our surroundings (Haidt, 2001). The idea is that promoting the states of consciousness will bring benefits to all. Believing in the oneness of creation removes arrogance, prejudice, and injustice.

Tawhīd is not only a declaration but is also the key to ridding humanity of hatred, oppression, and other sinful behaviors. Therefore, the purpose of this state of being is not to proclaim God’s oneness but to behave in a way that is conscious of God’s watch over the entire world (Qurtuby, 2013). El-Moslimany (2018) clearly articulates that when she states, “Humanity too is a rich mosaic of individuals—all from a common origin, but who became geographically separated to form distinct populations and cultures, superficially different but meant to know and learn from one another” (p. 18). In such a view, Tawhīd is key to achieving happiness on earth and beyond.

## **Relevant Research**

Through the empirical research there is an opportunity to inform and enlighten and as a result empower individuals and groups to realize the importance of movement from the egocentric and ethnocentric to the worldly state of being, a process embedded with traits and values needed to advance people’s lives and communities. In both the 2018–2019 and 2019– 2020 annual studies, we included groups of those constructs and examined ways they make a difference in the human developmental paths to higher states of consciousness, that is, to the worldly and Tawhīd as a state of submission to the oneness of God and unity with his creatures. To move forward and narrow the scope, those competencies (constructs) suggested to be significant in the first study were examined again and additional related constructs were included.

Further examination of supporting literature and areas of inquiry such as the social change approach and the tipping point concept supported

the idea of the spiral approach to development. These were identified in addition to the transformative education approach elaborated on in the first study (see Nasser et al., 2019). Taking a broader view of education and an interdisciplinary approach to the transition points described earlier as part of the human development trajectory led to the literature in the two above areas. As mentioned, they provide further evidence of the twists and turns of the three states of consciousness in the advancement of the developmental trajectory.

The social change model (often used in leadership studies) consists of three components and seven values, known as the seven C's (Brauer & Chaurand, 2010). The first component is the individual level (the egocentric state) and includes the values of consciousness of self, congruence, and commitment. The second is the community level (the ethnocentric state) and includes the values of collaboration, common purpose, and civility in issues resolution. The third level focuses on society (the worldly state) and includes citizenship as its seventh value (Higher Education Research Institute, 1996). The worldly and Tawhīd states are amplifiers of this third component in the social change model and go beyond citizenship to include all the values of the well-rounded human being and the elevated state of consciousness that this empirical study contributes to its portrayal.

There is also support in the tipping point literature that makes the case for these traits and their essential roles in the transformation process. As a developing area of research, a tipping point is defined as a small quantitative change that inevitably triggers a nonlinear change in the social component of the social ecological system, driven by a self-reinforcing positive feedback mechanism, that inevitably and often irreversibly leads to a qualitatively different state of the social system (Milkoreit et al., 2018). The research on tipping points suggests the importance of responsibility toward others and the collective. This sense of responsibility

toward others is central to collective action and typically arises from frequent (often face-to-face) interactions among members who are willing to help others and share the collective's goals (Coleman, 1990; Leana & Van Buren, 1999). There is also evidence for the importance of altruism, empathy, and a collaborative collective (Anik & Norton, 2019) as part of the transformation.

According to Graves (2005), the “six themes for existence may repeat if humanity continues to exist and in existing constantly solves and constantly creates new problems of existence” (p. 508). The social change and tipping point models described above align well with the changing life conditions approach described by Beck and Cowan (1996, 2006) in spiral dynamics and confirm the six conditions for transformation in thinking patterns and psychosocial existence allowing for change to occur. Both concepts focus on the individual's effort and understanding of the states of consciousness and personal and interpersonal skills and virtues (value systems). This, in fact, also aligns with Erikson's (1993) life span stages, each of which involves a dilemma to be resolved, whereas in SD the focus is more on systems, and the conditions are motivators and escalations in human strength.

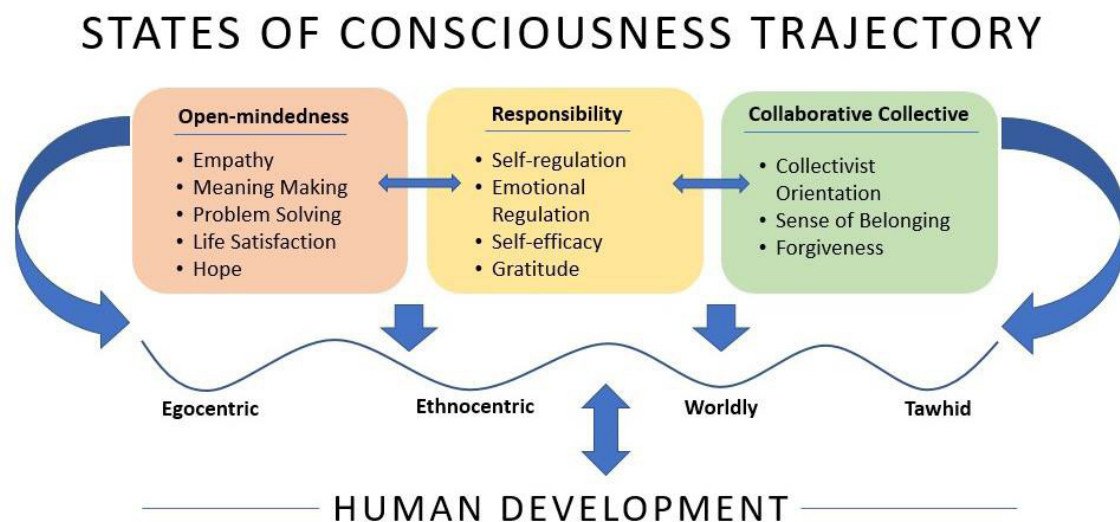
The first condition, Beck and Cowan (2006) identify is labeled as the *potential*, which can be open, arrested, or closed). It “describes the capacity to change: The more open the more capable to respond to change” (p. 76). For this condition to exist and empower transformation, people need to have the necessary flexibility, open-mindedness, and listening skills. *Finding solutions* is the second condition, identified where problems are managed, a zone of comfort has been reached, and energy is available to explore the next level. A few of the needed traits here are problem-solving and critical thinking.

*Dissonance* is the third condition, where factors such as the growing gap between life conditions and means to handle problems occur, or a sense that something is wrong and needs to change, and failure of old solutions. In this condition when dissonance is experienced, self-awareness, self-evaluation, and metacognitive skills become essential. The fourth condition, Beck and Cowan (2006) call *barriers*, which requires recognizing difficulties to change, identifying them concretely, and dealing with them in several ways such as “bypassing them or reframing them into something else” (p. 83). This condition requires the responsibility and problem-solving traits.

The next is *insight*, which exists when a person (such as a leader) accepts what went wrong with the previous system and evaluates what resources are now available to produce alternatives. Traits such as self-evaluation, responsibility, and problem-solving are needed for this condition. The last life condition, *consolidation*, happens when support is available during the transitions from one level to another. Here a collaborative collective is proposed as a needed trait to generate support. Literature in this area is scarce and requires further exploration. Lessons learned here will guide further research on the topic.

Based on the review of the literature and the identification of proposed skills needed for overcoming life conditions, we placed the constructs in a framework situated in the human development, social development, and education transformation literature. It is worth noting that the selection of these constructs was also motivated by a perspective that for every higher value there are sets of skills that can be taught in educational settings, such as teaching listening skills and critical thinking, as part of the ethnocentric state of being. Of course, other skills can be included and investigated further, but this is a good place to start.

Subsequently, three umbrella categories also emerged from the review: (a) open-mindedness, (b) responsibility, and (c) collaborative collective. Learning more about these and participants' perceptions and attitudes toward them may serve as a catalyst to infuse them in teaching and learning situations. Whether they are rated as very important or not important on the surveys will guide us toward recommendations to policy makers and stakeholders in the communities we partnered with. Figure 1 illustrates the constructs investigated in this study and ways they fit within the SP framework.



**Figure 1 Hypothesized Spiral Progression (SP) Approach**

Note that the measures within the constructs here are all interrelated, and examining one requires some of the others such as self-regulation, which includes cognitive and behavioral regulation as well as emotional regulation, both qualities suggested to be important for the development of empathy and gratitude. The next section defines the constructs shown in Figure 1 and makes connections among them.

## Constructs

In the hypothesized SP approach described above, we examined the three umbrella motivators for change identified in the literature. Within each we constructed measures that promote the traits and dispositions of the construct. By no means are these the only ones, but they do represent some of the needed values and competencies to achieve the trait as suggested in the SD model, theories of social change, and the tipping point literature. A summary of motivator and its traits and values follows.

### *Open-Mindedness*

In this first umbrella category of our SP approach, we included the constructs of empathy, meaning making, problem-solving, life satisfaction, and hope. As Baehr (2011) suggests, “Open-mindedness enjoys widespread recognition as an intellectual virtue” (p .191). The literature on open-mindedness indicates that it is seen as a virtue or a value but at the same time as a skill including the ability to think things through, to adapt and maneuver in solving problems with critical thinking skills, and to examine all sides and perspectives (Proyer et al., 2011). This could happen at any state of the SP approach, but we are assuming, based on the research in areas such as empathy, problem-solving, meaning making, hope, and life satisfaction, that open-mindedness supports and empowers individuals and groups to move up to the higher states of consciousness. It also promotes wisdom and knowledge making (Proyer et al., 2011). The literature suggests that a combination of cognitive as well as emotional competencies are needed to transform or empower individuals to move up the developmental progression—a hypothesis of key relevance to the present study. The following section describes the constructs we examine in the first category of the SP approach.



## Empathy

In this study empathy is defined as the ability to understand others' emotion, the willingness to care, feel, and take the perspective of others and be responsive to their needs. Empathy has been mostly studied in the developmental psychology field; scholars such as Davis (1983, 1994) emphasize both cognitive and affective perspectives of empathy.

Many cognitive theorists argue that empathy is grounded in social understanding and is used interchangeably with compassion for others' welfare and state of being. Empathy is found to be a predictor of forgiveness and other prosocial constructs (Nasser et al., 2019).

Moral and philosophical theorists, however, suggest that empathy refers to an individual's sympathetic response to others' suffering (Horsthemke, 2015; Zahavi & Overgaard, 2011) and deliberate effort to understand, communicate, and act based on others' perspectives (Gair, 2012; Hojat, 2007). This understanding and responsiveness leads to development of trust and intimacy among individuals. Empathy is an important value and skill that has positive association with social and communication skills and moral judgment (Ahmetoglu & Acar, 2016). Empathy is teachable and can be included in the curriculum. Research findings show that adolescents and university students who were taught empathy showed lower levels of hostility and aggression (Castillo et al., 2013).

## Meaning Making

Meaning making has been defined as a “sense of coherence or understanding of existence, a sense of purpose in one’s life, the pursuit and attainment of worthwhile goals, and an accompanying sense of fulfillment” (Ho et al., 2010, p. 2). Frankl (1963) suggested that individuals need to develop an unclouded vision about what is important for them and what they are looking for in their life to clarify their life meaning. Although the meaning in life is a personal experience, there are also related social connections; for example, the collectivist cultural values characteristic of Eastern societies versus the individualistic ones more characteristic of Western societies (Garcia-Alandete, 2015). Human beings are meaning-making creatures who need to search for meaning and maintain meaning in their lives as part of human nature and the experience of life. Having purpose and meaning in life is an essential component of humans’ well-being (Ryan & Deci, 2001; Steger, 2009).

Research findings show that there is positive association between meaning making and positive outcomes such as positive affect and self-efficacy (DeWitz et al., 2009). Also, meaning in life is found to mediate the relation between religiousness and life satisfaction as well as the relation between daily religious behaviors and well-being (Steger & Frazier, 2005). The literature shows the positive role of sense of meaning and purpose throughout the life span and well-being of adolescence and adults (Kiang & Fuligni, 2010; Lerner et al., 2010) as necessary for functioning effectively in society (Vignoles et al., 2006). Purpose and meaning are important developmental resources for adolescents, helping youth development and healthy transition to adulthood (Burrow et al., 2010). Lack of meaning and purpose results in negative consequences, such as identity crisis (Erikson, 1968).

### **Problem-Solving**

Social problem-solving refers to skills that individuals “use to analyze, understand, and prepare to respond to everyday problems, decisions, and conflicts” (Elias & Clabby, 1988, p. 53). Problem-solving is the cognitive-affective-behavioral process by which people attempt to resolve real-life problems in a social environment (Siu & Shek, 2010). Social problem-solving helps individuals manage their emotions through successful adaptation of coping strategies. It also helps with maintaining positive interpersonal relationships through conflict management and resolution. Social problem-solving skills are one of the most important coping strategies (D’Zurilla & Nezu, 1999). Coping strategies and emotion regulation are abilities that play important roles in overcoming different stressors (Dubow & Tisak, 1989; Elias & Clabby, 1988) and gaining greater self-control and regulation over our own behaviors (Gootman, 2001). These skills also improve positive social adjustment, emotional well-being, and health (Dreer et al., 2005) and play a role in developing and maintaining interpersonal relationships (Elias & Clabby, 1988).

Positive affective state, conscientiousness, and open-mindedness are predictors of high problem-solving ability, while neuroticism has an adverse relationship with problem-solving ability. (D’Zurilla et al., 2011). In academic settings, in addition to improvement of social adjustment and behavior, social problem-solving skills also help in academic success and advancements (Gootman, 2001; Nelson et al., 1996). These skills are teachable and should be part of curriculum (Gootman, 2001). Teaching social problem-solving skills to students results in their developing knowledge of problem-solving skills, enhanced acceptance by peers, increased empathy for peers, and greater expectancy for positive results related to problem-solving skills, and behaviors (Shure, 2001).

## **Life Satisfaction**

Life satisfaction is defined as cognitive and global self-evaluation of one's own quality of life (Diener et al., 1985) that has been studied across cultures and found to be similar and consistent across cultures. It is cognitive evaluation of individuals' real life compared with their ideal life (Russell & Carroll, 1999). Research has shown that life satisfaction is predicted by various variables including social, cultural, and financial variables.

Studies show that open-mindedness contributes to life satisfaction (Proyer et al., 2011), and psychological and relational factors such as perceived social support (Diener, 2000), family support (Edwards & Lopez, 2006) hope (O'Sullivan, 2011), and sense of belonging (Mellor et al., 2008) are positively associated with life satisfaction.

Life satisfaction is the cognitive component of subjective well-being; the other component is the affective state. In recent years, subjective well-being has become the focus of interest for many researchers interested in positive psychology (Jovanovic, 2015). Subjective well-being and happiness result in higher levels of coping and self-regulation abilities and improved mental and physical health (Fredrickson & Joiner, 2002).

Research shows that among student populations life satisfaction is directly and positively associated with self-efficacy, academic satisfaction, positive and negative affect (Saroughi & Kitsantas, 2020), and academic performance and self-esteem (Khaleghi Nezhad et al., 2016). Also, studies show that life satisfaction is strongly correlated with health-related factors such as chronic illness, sleep problems, pain, obesity, smoking, anxiety, and lack of physical activity (Strine et al., 2008).

## Hope

Hope is a multifaceted concept defined in diverse ways. For example, Feldman and Snyder (2005) describe hope as an expectation for things to change for the better. Hope is also referred to as a mental willpower for being persistent and progressing toward achieving goals. Snyder (2002) suggests that hope has two components: agency, or the willpower to reach a certain goal, and pathways, or perception of capability to create means to reach that goal. Hope is an essential element contributing to individuals' mental health (Krafft et al., 2017) and is considered to be in the field of positive psychology as one of the pillars of psychological capital and the main contributor to humans' well-being. Hope uniquely contributes to mental functioning, subjective, psychological, and social well-being of individuals (Lee & Gallagher, 2018).

According to psychological capital positive emotions and affects such as hope, and efficacy strengthen one's coping mechanisms when facing challenging situations and enhance one's intellectual abilities, social resources, and well-being (Luthans & Youssef-Morgan, 2017). Lack of hope is especially damaging among youths who are in transitional stages of their development and need to have a positive overview of the future. Internal resources such as positive emotions of hope provide individuals the opportunity to overcome their struggles. Hope is found to be positively associated with individuals' psychological adjustment and coping (Rand, 2018). It is also found to be a strong predictor of subjective well-being and resiliency in difficult situations (Pleeging et al., 2019). It is suggested that it should be part of curriculums and interventional programs to promote positive psychological states and success among students (Kirmani et al., 2015).

## *Responsibility*

This second umbrella category in our SP approach encompasses many of the competencies we explore in this study and in the areas of personal and social responsibility. Here, too, the idea is that these are some of the needed skills but not necessarily all the ones needed to act in a socially responsible manner. Bandura (1989, 2001) proposes that human beings are not passive creatures controlled by their environments and able to react only to their contextual and social cues; rather, they have agency and the capability to pro-actively manage and control their functions and actions. This characteristic gives individuals both the ability and responsibility to thrive and grow and to influence their social environment and other individuals. Here again agency and responsibility, as with open-mindedness empower individuals to move along the trajectory from egocentric to ethnocentric and up to the collaborative collective. Within this category, we examine several additional constructs including self-regulation, emotional regulation, self-efficacy, and gratitude.

## Self-Regulation

Self-regulation is defined as “generated thoughts, feelings, and actions that are planned and cyclically adapted to the attainment of personal goals” (Zimmerman, 2000, p. 14). According to social cognitive theory (Bandura, 1986, 1977), self-regulation is a process that enables individuals to proactively manage their circumstances and environment and personally activate and control their cognitions, emotions, and behaviors in order to successfully complete certain tasks and achieve their own goals (Zimmerman & Schunk, 2008). Self-regulated learning became popular in the 1980s (Paris & Winograd, 2001), when the importance of developing self-beliefs and using learning strategies in the learning process was identified. The effectiveness of self-regulation in promoting achievement and performance has been confirmed in myriad studies in different fields including in the academic field. In academic settings, self-regulation is found to be associated with self-efficacy and it is a strong predictor of student academic achievement in math, science, reading and writing (Zimmerman, 2008).

Research shows that the ability to self-regulate is necessary for adapting essential coping and learning skills (Vohs & Baumeister, 2011). Self-regulatory strategies are teachable, and individuals can learn them through modeling (Schunk, 2005; English & Kitsantas, 2013). Knowing and adapting self-regulatory strategies is essential in the learning process, as Pintrich (2010) suggests: “Students who know about the different kinds of strategies for learning, thinking, and problem solving will be more likely to use them” (p. 222).

Research has shown that through self-regulation individuals are able to self-monitor and evaluate their own behavior and modify or continue using appropriate strategies to achieve their goals (Mills et al., 2007). Studies show that individuals with higher levels of self-regulation are better able to adapt different behaviors and responses to various life challenges and daily demands by adjusting and regulating their emotions and cognition. This adjustment will help healthy and effective functioning. Self-regulation is associated with higher levels of positive affect and life satisfaction (Saroughi & Kitsantas, 2020) and increased well-being (Boekaerts & Niemivirta, 2000).

## **Emotional Regulation**

Emotional regulation has been referred to as “a process through which individuals modulate their emotions consciously and non-consciously to respond appropriately to environmental demands” (Goubet & Chrysikou, 2019, p. 1). Gross (1998) suggested that it is a process by which individuals experience and express their feelings.

Emotional regulation can be automatic or controlled, conscious or unconscious, and may affect at one or more points the emotion producing experiences and process. This definition is related to both positive and negative emotions. It refers to one’s ability to effectively manage and respond to an emotional experience, and it is found to be an essential contributor of health and well-being (Tamir, 2009).

Emotion regulation strategies are coping strategies used for adjustment in demanding situations throughout daily life. Most individuals adapt different emotion regulation strategies according to their cognitive evaluation and use them based on the different situational or environmental needs and conditions. Emotional Regulation is a complex process and includes elements such as physiological arousal, behaviors, expressions, and motivation (Thompson, 1994). These strategies might be healthy or unhealthy. Different emotion regulation strategies are identified, two that are more common being cognitive reappraisal and suppression (Gross, 2008). “Reappraisal is a cognitively oriented strategy that alters the impact of an emotion by either changing the way a situation is constructed or by evaluating an emotional stimulus. Suppression is a response-focused strategy directed toward inhibiting or reducing behaviors associated with emotional responses such as facial expressions, verbal expressions, and gestures” (Katana et al., 2019, p. 1).



## Self-Efficacy

In social cognitive theory, Bandura (1986) suggests that self-efficacy is a key construct that positively and strongly correlates with one's cognitive and behavioral engagement in a certain task. Self-efficacy is defined by Bandura (1986, 1997) as a person's belief in his or her ability to organize and execute certain behaviors that are necessary to become successful in each task. Self-efficacy affects how people think, feel, and behave. It influences one's decision to initiate an action, the types of goals one sets and activities one undertakes, and the level of effort, persistence, and time that one is willing to spend in completing certain tasks (Bandura, 2006, 2017). Many studies support Bandura's claim that a person's beliefs in his or her ability to be successful in a task plays a more significant role in success than the capability itself. Self-efficacy is malleable and is influenced by four main sources: past performance accomplishment or mastery, vicarious experience, social persuasion, and physiological/psychological states (Bandura, 1986).

Mastery is a source that is influenced by one's belief about the level of success achieved in previous performance of the same or similar tasks. When learners experience success in an academic task, they develop more positive self-efficacy, beliefs, and a sense of mastery in doing similar tasks and therefore are more motivated to initiate and complete that task. Vicarious experience is a source influenced by modeling.

When one realizes that another person with similar characteristics or background is capable of success in a certain task, one becomes more motivated, develops more positive beliefs in one's own ability to succeed in the same or a similar task. Social persuasion refers to the messages that one receives from others regarding his/her own ability to successfully complete a desired task.

Physiological/psychological state is another source of self-efficacy. Emotional and affective states are not only important factors in wellbeing but are also critical elements of self-efficacy and the ways individuals perceive themselves and believe in their own ability to be successful in achieving their desired goals. Feelings such as belonging, satisfaction, and happiness enhance self-efficacy beliefs; in contrast, anxiety and stress can have a negative effect on one's perceived self-efficacy. It is also context related and is influenced by emotional and situational conditions. Positive emotions such as pride and joy have a positive correlation with positive sense of efficacy, while anxiety, sadness, and other negative feelings lower someone's perception of his/her capability and beliefs in being able to perform a task.

### **Teacher Self-Efficacy**

Teacher self-efficacy is defined as “the extent to which the teacher believes he or she has the capacity to affect student performance” (Berman et al., 1977, P. 137). Bandura (1977) suggests that teachers’ efficacy beliefs are an influential factor in their instructional practices. Based on social cognitive theory and Bandura’s perspective, teachers who believe in their ability to adapt necessary strategies and influence their students’ learning are better instructors.

Research studies show that teacher efficacy “is related to many meaningful educational outcomes such as teachers’ persistence, enthusiasm, commitment and instructional behavior, as well as student outcomes such as achievement, motivation, and self-efficacy beliefs” (Tschannen-Moran & Woolfolk Hoy, 2001, p. 783). Teachers’ self-efficacy is associated with students’ positive outcomes such as motivation and engagement. It also positively influences students’ achievement and self-efficacy (Tschannen-Moran & Woolfolk Hoy, 2001). In a qualitative study conducted by Pfitzner-Eden (2016), researchers examined teacher self-efficacy sources among preservice teachers and found that mastery experience significantly predicted teacher efficacy, and mastery experience was influenced by the three other self-efficacy sources, vicarious experiences, verbal persuasion, and physiological and affective states.

Morris and Usher (2011) found that mastery experiences and verbal persuasion sources which were associated were the most influential sources of self-efficacy affecting university professors.

## Gratitude

“Gratitude is considered as the appreciation of what is valuable and meaningful to oneself and represents a general state of thankfulness and/or appreciation” (Sansone & Sansone, 2010, p. 18). It is related to pleasant feelings of experiencing a favor or benefit from others (McCullough et al. 2002).

Gratitude is a positive emotion and an important human virtue. The literature shows that “adolescents’ gratitude is positively related to many of the same emotions found in the adult research, such as hope, forgiveness, pride, contentment, optimism, inspiration, and global positive affect” (Wood et al., 2010, p.895). Some psychologists consider three types of gratitude: gratitude as an affect, a mood, and an emotion. Also, some theorists conceptualize gratitude in two levels, either as a “trait gratitude,” which is associated with other positive traits and well-being, or as a “state gratitude,” which is a response and reaction after receiving help and support or an act of kindness (Wood et al., 2008).

Gratitude is positively related to active coping styles, perceived social support, life satisfaction, and well-being. Individuals who express their gratitude usually show more prosocial behaviors, adapt more coping strategies (Ting & Yeh, 2014), and develop stronger social relations and friendships (Harpham, 2004). Gratitude intervention programs result in increased positive affect and well-being.

### *Collaborative Collective*

This third umbrella category, which responds to life conditions such as the two before (open-mindedness and responsibility), is a unique construct to examine in this exploratory study in Muslim societies. It offers an approach to transformation that stems from the collective nature of Muslim-majority societies but adds the collaborative nature as a necessary condition for the collective to work. It is not the Western notion of cosmopolitanism that, according to some, highlights global interdependence, or what Beck (2004) named the interconnectedness of the globalized world. The collaborative collective builds on the sense of community and shared values that drive the understanding that it is not sufficient to rely on the clan and immediate collective but rather encourages the interdependence to the betterment of life for all. Within this category, we identified constructs such as sense of belonging and forgiveness which rely on a deep value system grounded in Islamic teaching, traditions, and the notion of the collective (Abu-Nimer & Nasser, 2013).

### **Collectivistic vs. Individualistic**

Individualism is defined as a situation in which people are concerned with themselves and close family members only, while collectivism is defined as a situation in which people feel they belong to larger in-groups (Darwish & Huber, 2003). People from individualistic cultures have an independent view of themselves and perceive themselves as separate from others. People from Collectivist cultures are more likely to have an interdependent view of themselves, see themselves connected to others, and define themselves in terms of relationships with others.

Hofstede and Bond (1984) defined individualism as a characteristic of people's primary concern for themselves and their close family members, while collectivism is a cultural characteristic where people care about larger in-groups or collectives in exchange for loyalty—and vice versa. In a study with the sample of 300 participants from the United States, 150 from Japan, and 97 from Puerto Rico, Triandis et al. (1990) studied how individualism and collectivism were related to certain outcomes such as social behavior and health indices. The results indicated that U.S. participants referred to individualism as self-reliance with competition, low concern for the in-group, and low psychological distance from the ingroup. However, participants in Japan and Puerto Rico suggested that their responses were based on who the others are, and they considered that being attentive to others' views is one aspect of collectivism (Hui & Triandis, 1986; Triandis et al., 1990). The individualism-Collectivist dichotomy is often used in comparisons of Western and Asian society; however, there are many differences among societies that are categorized with either of these orientations (Brand, 2007).

## **Sense of Belonging**

Belongingness is a basic human need, the fulfillment of which is necessary for a person's progress toward self-actualization (Maslow, 1962). It is an important source of well-being for all individuals (Baumeister & Leary, 1995). Sense of belonging is defined as an individual's feeling of identification with a certain group (Tovar & Simon, 2010). In an academic setting, sense of belonging is defined as students' perception of being supported, accepted, respected, and included in the institution (Goodenow, 1993). In a meta-analysis that included 51 studies, it was found that teacher support was one of the strongest predictors of a sense of school belonging (Allen et al., 2018).

Sense of belonging is a context-related concept that is influenced by environmental and situational variables. In an academic institution, sense of belonging is defined as a student's perception of being supported, accepted, respected, and included in that institution (Goodenow, 1993). Students who perceive that they have positive interactions and good relationships with their peers and teachers can develop a stronger sense of belonging. In educational settings, sense of belonging is found to be a strong predictor of students' positive affect, academic and life satisfaction, and self-efficacy and self-regulation (Saroughi & Kitsantas, 2020). Students' sense of belonging is related to their integration into their institutional interests, their relationships with faculties and peers, participation in campus life, and curricular and extra-curricular activities (Astin, 1999). On the other hand, students' positive interactions and relationships with their campus agents (peers, faculties, and staffs) increases students' sense of belonging, which in turn promotes their academic achievement and well-being.

## **Forgiveness**

In this study, forgiveness is defined as the ability and willingness to let go of hard feelings and the need to seek revenge on someone who has wronged the subject or committed a perceived injustice against the subject or others. Forgiveness is a broad and subjective construct that is perceived differently by individuals from diverse cultures or contexts. Enright and Gassin (1992) define it as the “willingness to abandon one’s right to resentment, negative judgment, and indifferent behavior toward one who unjustly hurt us, while fostering the undeserved qualities of compassion, generosity, and even love toward him or her” (p. 102).

Various scholars defined forgiveness while emphasizing the roles and responsibilities of the individual to reach the decision to forgive. For example, according to McCullough and Witvliet (2002), forgiveness can be perceived as a “response, a personality disposition and as a characteristic of social units” (p. 447). Forgiveness is also defined by Ahmed and Braithwaite (2005) to ameliorate and reduce the destructive cycle of conflict and violence between individuals and groups.

Forgiveness is “the emotional replacement of (1) hot emotions of anger or fear that follow a perceived hurt or offense, or (2) ridding of the unforgiveness that follows ruminating about the transgression, by substituting positive emotions such as unselfish love, empathy, compassion, or even romantic love” (Worthington, 2001, p. 32). Nasser et al. (2014) suggest that forgiveness is a personal decision that originates from intrinsic motivation to let go, while forgiveness education promotes understanding of different perspectives and reduces stereotypes (Abu-Nimer, 2001). Studies have found forgiveness to be aligned with psychological health and linked to values such as empathy, gratitude, and life satisfaction. Participants in studies that investigated these correlations suggested that people with higher empathy and gratitude are more forgiving (Marigoudar & Kamble, 2014).



### **Religiosity/Spirituality**

Religiosity is utilized in this study as a demographic variable with its own measure of five items. It is defined as the degree of influence one's faith has on one's values, behaviors, and everyday life, and it consists of different dimensions, such as public practice, private practice, religious experience, ideology, and intellect (Huber and Huber, 2012). These dimensions can be considered as representative of the total of religious values and how these are practiced in peoples' lives. Teymoori et al. (2014) suggest that "religion is a social institution that dramatically influences individuals' behaviors and daily actions as well as their social and political orientations" (p. 93). Many scholars argue that people may seek religion when they are experiencing stress or hardship because religion can protect individuals from different mental health issues such as depression and anxiety. According to this perspective, religion fulfills the human need for security among the basic needs and is the foundation for self-actualization (Maslow, 1943, 1954).

The literature suggests a close relationship between healthy emotional functioning and religion. According to Foster and Armstrong (2017), "Self-regulation, the formation of relationships, and a sense of a separated self are deeply rooted in trust, as is the establishment of love, hope, and courage, which are integral to spiritual and religious experience and development" (p. 141). Based on the work around liberation theology and progressive education, the concept of critical religious thinking emerged as a lacking area where the pedagogy of re-ligiosity is at the center instead of religious knowledge (Wang, 2013).

This, of course, is less common than the use of the replacement term “spirituality,” which came to indicate the ability to be a believer and a spiritual person but not necessarily a religious one. It also seems that spirituality is used widely to describe variations of beliefs and faith, while in Muslim societies, where most of the population is religious, “spirituality” is a less commonly used term.

Regardless of the definition or terminology used, we have empirical support for the notion that being spiritual or religious does not happen in a vacuum but is a complex and a developmental process. The stage theory of faith development by Fowler (1991) illustrates this by suggesting that the experiences in each stage are influenced by one’s close others and surroundings. In this study, religiosity is treated as a demographic construct because it wasn’t examined in all locations. In some, religiosity items were deleted, and in others they were spread across the survey. In Nasser & Cheema’s (2021) study, religiosity was an important variable in predicting forgiveness but not as much as empathy.

### 3. Methodology

The methodology described in this section and the empirical results presented later on are based on a sample of 15 countries/regions for which data collection were performed. (see Appendix C). Due to factors such as regional differences, financial considerations, host- country approvals, and location of affiliate offices, almost all country-level samples were restricted to the main regions in the country. However, an effort was made to randomize as much as possible the selection of schools and universities from each region, and the selection of students within each institution. All individuals directly involved in the data collection process received training about protocols required for research involving human subjects.

#### Sample Groups

Data was collected from four distinct groups of respondents: schoolteachers, school students, university instructors, and university students. Figure 2 shows the distribution of survey respondents by survey type, and Figure 3 shows their distribution by country. The largest sample ( $n = 2,657$ ) was collected from India, while the smallest sample came from the United States ( $n = 293$ ). Mean sample size was 1,240 (Median = 1,169, SD = 546). There was also variation in distribution of survey type across countries. Table 2 shows the cross- tabulation of survey type by country.

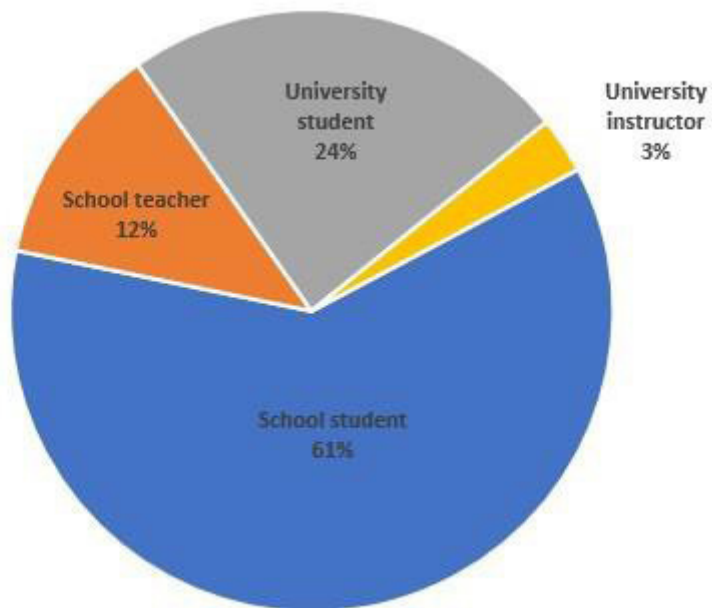


Figure 2 Distribution of Survey Respondents by Survey Type

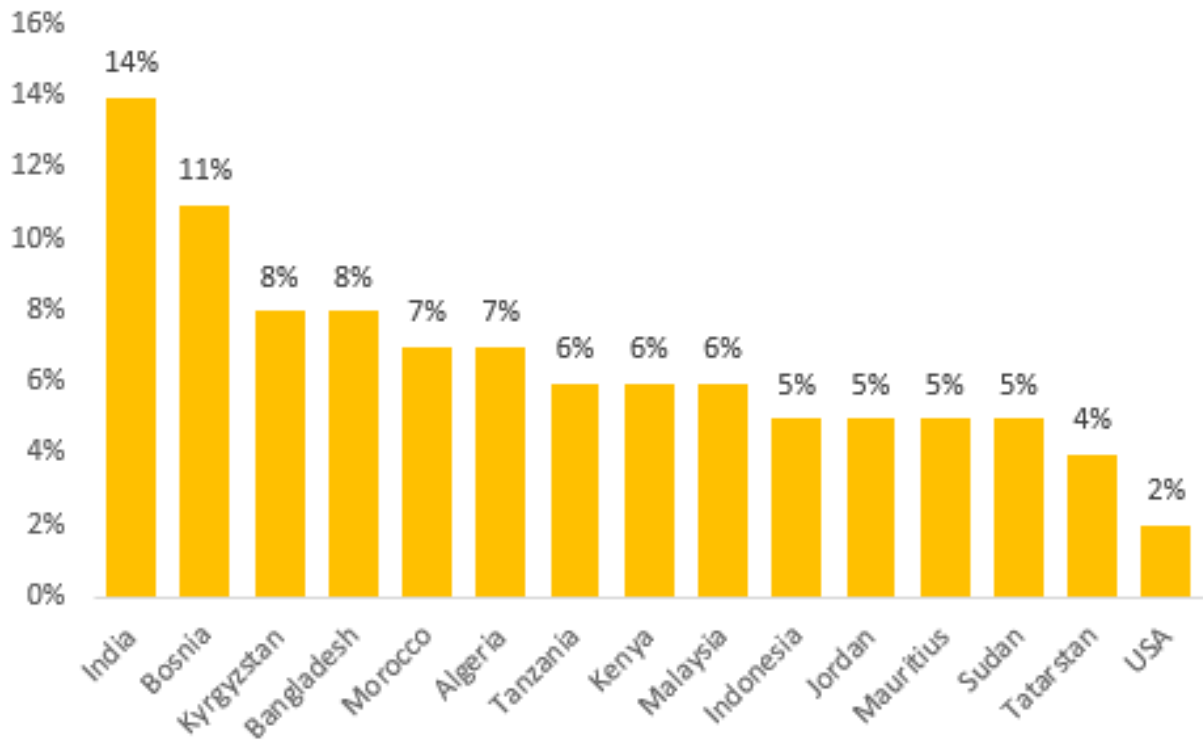


Figure 3 Distribution of Survey Respondents by Country

**Table 2 Distribution of Survey Type by Country**

Country	Survey type				Total
	School student	School teacher	University student	University instructor	
India	1,982	329	262	84	2,657
Bosnia	794	282	966	60	2,102
Bangladesh	1,203	184	169	9	1,565
Kyrgyzstan	762	194	524	55	1,535
Morocco	745	207	243	46	1,241
Algeria	778	188	224	46	1,236
Kenya	620	126	361	69	1,176
Tanzania	799	76	279	15	1,169
Malaysia	912	84	68	20	1,084
Indonesia	345	19	609	21	994
Mauritius	595	170	172	34	971
Sudan	499	108	270	72	949
Jordan	479	144	252	30	905
Tatarstan	622	70	0	32	724
USA	256	37	0	0	293
<b>Total</b>	<b>11,391</b>	<b>2,218</b>	<b>4,399</b>	<b>593</b>	<b>18,601</b>

## Measures

In addition to demographic questions, items related to the scales of interest were included in the surveys. In total, the scales included hope, life satisfaction, gratitude, self-regulation, meaning making, collectivistic orientation, empathy, forgiveness, self-efficacy, problem-solving, sense of belonging, religiosity/spirituality, emotion regulation, and teacher self-efficacy. The scales and their related items used in the survey are presented in Appendix B.

The design of our survey questionnaire for the different groups of participants was a gradual process that took several months and multiple steps. This process involved collaboration among several members of the research team who were very familiar with the sociocultural factors of the regions where the participants in the survey lived. Multiple questionnaires using different scales and formats were reviewed until the final draft was approved. One of the critical steps of this process was the selection of the scales used in this study based on extensive literature reviews and multiple discussions among experts in the field. The research team reviewed previous studies across different regions in international settings to identify scales that were the best fit to the constructs and matched the participants' characteristics.

Different aspects and criteria were considered in the selection of each item and scale used in the survey questionnaire. First, the scale needed to be specific to the constructs of our interest and considered to have a good reliability and validity by the scale developer or by other researchers across different samples with characteristics like our participants. In addition, the items needed to be culturally sensitive toward our participants. Therefore, in some cases, after identifying scales that could match our criteria, there was a need for some modification. For example, instead of using the whole

scale we had to select just certain subscales or portions of that scale to avoid including items which were culturally biased and irrelevant to our study. The other consideration in selecting the subscales/items were related to the length of the survey; we wanted to reduce participants' exhaustion to retain their attention for the completion of the survey. The other consideration in the design of the survey was to choose scales including items that were worded in an unbiased manner, easily understandable, and easy for all groups of participants to follow and respond to.

Finally, another modification was to make changes in the response format of some of the scales to make them more uniform across all items. Since we had several scales with different response formats, we aimed to make a more homogenous response format across the whole questionnaire to prevent participants' confusion. The scales that were included in the questionnaire are listed below (for a list of survey items see Appendix B). The measures we used were slightly adapted to our study and its participants. All versions of our survey are available at <https://iiit.org/en/home/>.

We used a combination of approaches to confirm each individual scale. First, initial reliability analysis was completed. All items requiring reversed coding to ensure all correlations were positive (an assumption of reliability analysis) were reversed. Those items that resulted in both positive and negative correlations after reverse coding procedures were completed were removed. Initial reliability scales were preformed to determine which items being removed would result in the highest Cronbach alpha scores. For those scales utilized in the structural equation modeling, confirmatory factor analysis (CFA) was used to confirm each individual scale. Since three SEM models are analyzed, three different confirmatory factor analysis CFA models were studied. Items flagged as problematic for any of the models (i.e., a factor loading of  $< .3$  were

removed. Items that were kept or removed after conducting reliability and factor analysis are listed in the technical report (<https://iiit.org/en/home/>). The final reliability analysis for each scale was then completed for the overall sample by country and by survey type. Detailed factor analysis and reliability results are presented later in this report.

### **Hope (not for students)**

This construct was measured by a scale developed by Krafft et al. (2017) and included 6 items. The response format ranged from 1 (strongly disagree) to 4 (strongly agree). This scale had Cronbach's alpha reliability coefficient of ( $\alpha = .79$ ) in this study across all countries.

#### **Item examples included**

- In my life, hope outweighs anxiety.
- My hopes are usually fulfilled.

### **Life Satisfaction (not for students)**

Life satisfaction was measured by the Satisfaction with Life Scale (SWLS; Diener et al., 1985), a 5-item scale designed to measure global cognitive judgments of one's quality of life. Response format ranged from 1 (strongly disagree) to 4 (strongly agree). This scale had Cronbach's alpha reliability coefficient of ( $\alpha = .69$ ) in the present study across all countries.

#### **Item examples included**

- The conditions of my life are excellent.
- I am satisfied with life.



## Gratitude

To measure gratitude, the Gratitude Questionnaire-Six Item Form (GQ-6) was used. Developed by McCullough et al. (2002). Response format was based on 1 (strongly disagree) to 4 (strongly agree). In the present study, this scale had Cronbach's alpha reliability coefficient of ( $\alpha = .65$ ) across all countries.

### Item examples included

- I am grateful to a wide variety of people.
- If I had to list everything that I felt grateful for, it would be a very long list.

## Self-Regulation

Self-regulation was measured using the Self-Regulation Questionnaire (SRQ) by Pichardo et al. (2014). This scale originally consisted of 17 items and four components: goal setting, perseverance, decision making, and learning from mistakes. In this study, the student survey included 16 items of this scale and teacher survey included 11 items. In this study, self-regulation analysis was based on the items that were common among all the participants (11 items). Response format ranged from 1 (strongly disagree) to 4 (strongly agree). In the present study, the scale for the overall sample across all countries had Cronbach's alpha reliability coefficient of ( $\alpha = .73$ )

### Item examples included

- I set goals for myself and keep track of my progress
- Once I have a goal, I can usually plan how to reach it

### **Meaning Making**

This construct was measured with the Meaning in Life Questionnaire (MLQ) developed by Steger et al. (2006). MLQ is a 10-item questionnaire designed to measure two dimensions of meaning in life: (a) presence of meaning (how much respondents feel their lives have meaning), and (b) search for meaning (how much respondents strive to find meaning and understanding in their lives). Response format ranged from 1 (not at all true) to 4 (very true). This scale had Cronbach's alpha reliability coefficient of ( $\alpha = .76$ ) in this study across all countries.

#### **Item examples included**

- I am always looking to find my life's purpose.
- I am looking for something that makes my life feel meaningful.

### **Collectivistic Orientation**

We used a modified version of the Triandis and Gelfand (1998) measure, itself a modified version of the original Singelis et al. (1995) scale. This measure has 16 items and four subscales: horizontal individualism, vertical individualism, horizontal collectivism, and vertical collectivism. The study used 14 items. Response format ranged from 1 (never) to 4 (always). This scale had Cronbach's alpha reliability coefficient of ( $\alpha = .67$ ) in this study across all countries.

#### **Item examples included**

- It is important that I do my job better than others.
- The well-being of my peers is important to me.

## Empathy

To measure empathy, the Interpersonal Reactivity Index by Davis (1983) was used. For this study, we used only one subscale of this instrument, perspective taking, which consisted of seven items. Response format ranged from 1 (strongly disagree) to 4 (strongly agree). This scale had Cronbach's alpha reliability coefficient of ( $\alpha = .66$ ) in this study across all countries.

### Item examples included

- I believe there are two sides to everything and try to look at them both.
- I try to look at everybody's side of a disagreement before I make a decision.

## Forgiveness

Forgiveness was measured by a scale originally developed by Tangney et al. (1999), modified by Nasser & Abu-Nimer (2012), and further aligned in its structure and number of items in this study. This scale has nine items, and the response format ranged from 1 (extremely unlikely) to 4 (extremely likely). This scale had Cronbach's alpha reliability coefficient of ( $\alpha = .76$ ) in this study across all countries.

### Item examples included

- Imagine that one of your friends starts a nasty rumor about you that is not true.
- Imagine a young man from your town who was almost engaged to one of your sisters left her.

### **Self-Efficacy (specific to students)**

Students' self-efficacy was measured by the General Self Efficacy Scale (GSES-12) initially developed by Sherer et al. (1982) and modified by Bosscher and Smit (1998). This scale originally includes three subscales: initiative, effort, and persistence and a total number of 12 items. The scoring ranged from 1 (never) to 4 (always). This scale had Cronbach's alpha reliability coefficient of ( $\alpha = .67$ ) in this study across all countries.

#### **Item examples included**

- I avoid trying to learn new things when they look too difficult.
- When trying to learn something new, I soon give up if I am not initially successful.

### **Problem-Solving (specific to students)**

To measure problem solving, we used the Youth Life Skills Evaluation scale developed by Mincemoyer et al. (2001). This scale included 12 items, and the response format ranged from 1 (never) to 4 (always). This scale had Cronbach's alpha reliability coefficient of ( $\alpha = .80$ ) in this study across all countries.

#### **Item examples included**

- I can easily express my thoughts on a problem.
- I am able to give reasons for my opinions.

### **Sense of Belonging (specific to students)**

Sense of belonging was measured by the Psychological Sense of School Membership (PSSM) scale by Goodenow (1993). This 18-item scale was initially developed for school students and then was adapted by Pittman and Richmond (2007) to fit university students. This scale included 18 items, and the response format ranged from 1 (not at all true) to 4 (very true). This scale had Cronbach's alpha reliability coefficient of ( $\alpha = .82$ ) in this study across all countries.

#### **Item examples included**

- Other students here like me the way I am.
- People here know I can do good work.

### **Religiosity/ Spirituality**

Religiosity/spirituality was measured by the Centrality of Religiosity Scale (CRS) developed by Huber and Huber (2012). A measure of the centrality, importance, and salience of religiousness in a person, the scale originally consisted of seven items but only five items were included in the present study. Response format ranged from 1 (not important) to 4 (very important). This scale had Cronbach's alpha reliability coefficient of ( $\alpha = .86$ ) across all countries in this study.

#### **Item examples included**

- How important is your religion for you?
- How important is prayer for your religious beliefs?

### **Emotion Regulation**

Emotion regulation was measured by a scale adapted from Gross and John's (2003). This 10-item scale designed to measure respondents' tendency to regulate their emotions in cognitive reappraisal and expressive suppression. We used eight items in our survey. Response format ranged from 1 (strongly disagree) to 4 (strongly agree). This scale had Cronbach's alpha reliability coefficient of ( $\alpha = .67$ ) in this study across all countries.

#### **Item examples included**

- When I want to feel more positive emotion, I change the way I am thinking about the situation.
- I control my emotions by changing the way I think about the situation I am in.

### **Teacher Self- Efficacy (specific to instructors)**

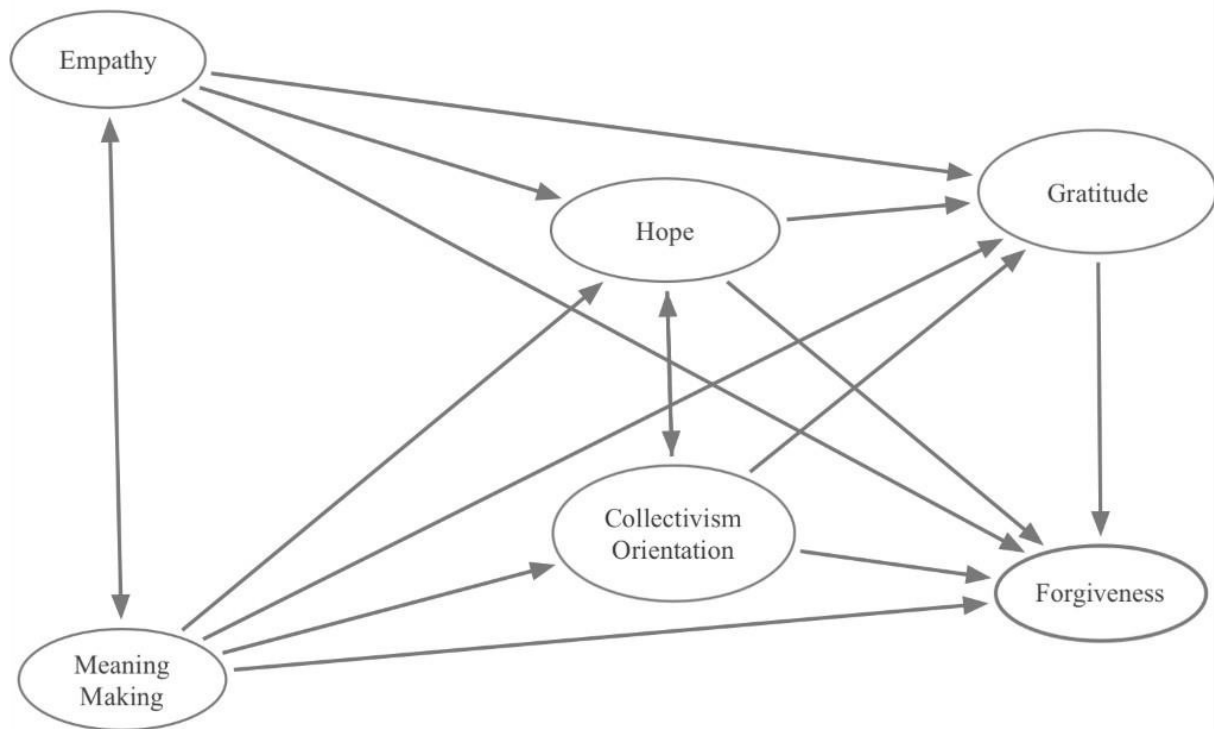
Teacher self-efficacy was measured using the scale developed by Bandura (1998, 2006). This scale is a 17- item survey. In this study, 16 items were included. Response format ranged from 1 (nothing) to 4 (a great deal). This scale had Cronbach's alpha reliability coefficient of ( $\alpha = .93$ ) in this study across all countries.

#### **Item examples included**

- How much can you help other teachers with their teaching skills?
- How much can you do to reduce school dropout?

## Hypothesized Relationships Between Constructs

Based on the literature and specific to our participants' groups, we utilized Structural Equation Modeling (SEM) to explore relationships among variables of interest. Initially, we developed three hypothetical models that are exploratory and include general, instructor, and student models.



**Figure 4 Hypothetical General Model**

### *Hypothetical General Model*

In the hypothetical general model (Figure 4), two of the scales, gratitude, and forgiveness, were treated as outcome variables, whereas the rest were treated as predictors. This latter group of scales included empathy, meaning making, hope, and collectivistic orientation.

In the hypothetical general model, which is specified for the whole population of the present study, we have considered empathy as one of the main predictors, as in our previous international study (2018–2019), where

it was found that empathy was a strong predictor of several of the variables including socioemotional and social cognitive variables such as sense of belonging, forgiveness, and self-efficacy. In addition, empathy, or the ability to experience the world from others' point of view, has been found in previous literature to play an important role in initiating prosocial acts and behaviors resulting in satisfying others' needs. Especially, perspective-taking ability, as a component of empathy, is a strong predictor of prosocial behaviors and helping acts (Batson et al., 2007). Research suggests that individuals with better social support and social skills develop higher levels of empathy. Also, it is found that in addition to empathy, one of the outcome variables in this model, gratitude, is also needed for both development and promotion of prosocial behaviors as well as maintaining long-lasting social connectedness and belonging (Oriol et al., 2020).

Forgiveness, the second outcome variable in the model, is found to be positively associated with empathy and other variables such as positive beliefs, life satisfaction, and gratitude. Also, studies show that forgiveness is negatively associated with negative emotional and affective states such as depression, anger and anxiety, somatic symptoms, guilt, and vulnerability (Friedman & Toussaint, 2006).

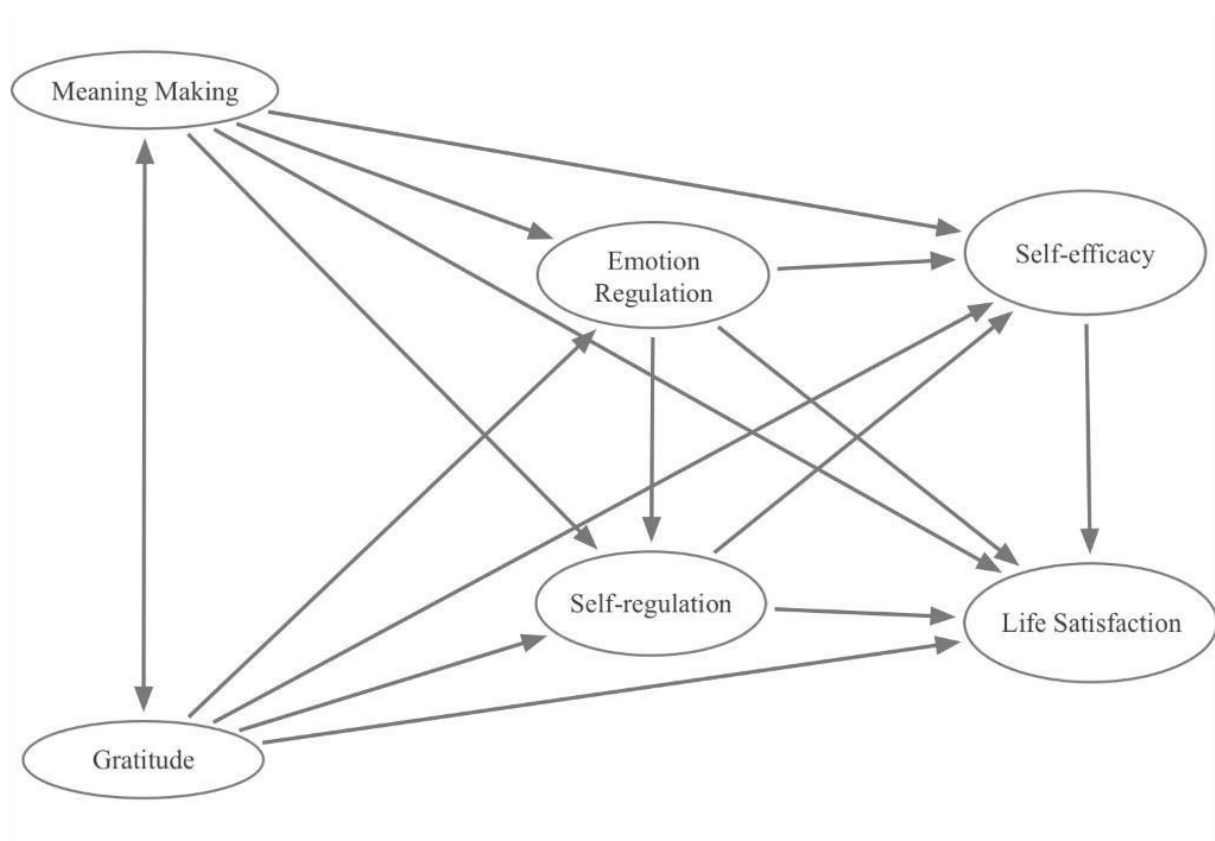
Studies show that most Western cultures such as North America hold an individualistic culture and highly value personal happiness (Triandis et al., 1990). This study is unique in its examination of Muslim-majority communities living in non-Western regions such as Asia, Africa, and the Middle East. Based on that, a collectivistic orientation variable was added to explore its mediating roles between our predictors and outcome variables and to find out if and how people living in different regions might hold different collectivistic orientations. The collective orientation as one of the characteristics of the target population may have changed and shifted because of globalization and massive social media apparatus



and as such lends itself for an examination. In addition to the general hypothesized model, two other models were developed that are more specific to the different subsamples in the study: an instructor's model that includes schoolteachers and university instructors, and a student model that includes school and university students.

### *Hypothetical Instructor Model*

In the hypothetical instructor model (Figure 5), six scales were included for their importance for teaching and learning situations.



**Figure 5 Hypothetical Instructor Model**

Two of the scales, teacher self-efficacy and life satisfaction, were treated as outcome variables, whereas the rest were treated as predictors. This latter group of scales included meaning making and gratitude, which were set as exogenous variables, and emotion regulation, and self-regulation, which were set as mediators.

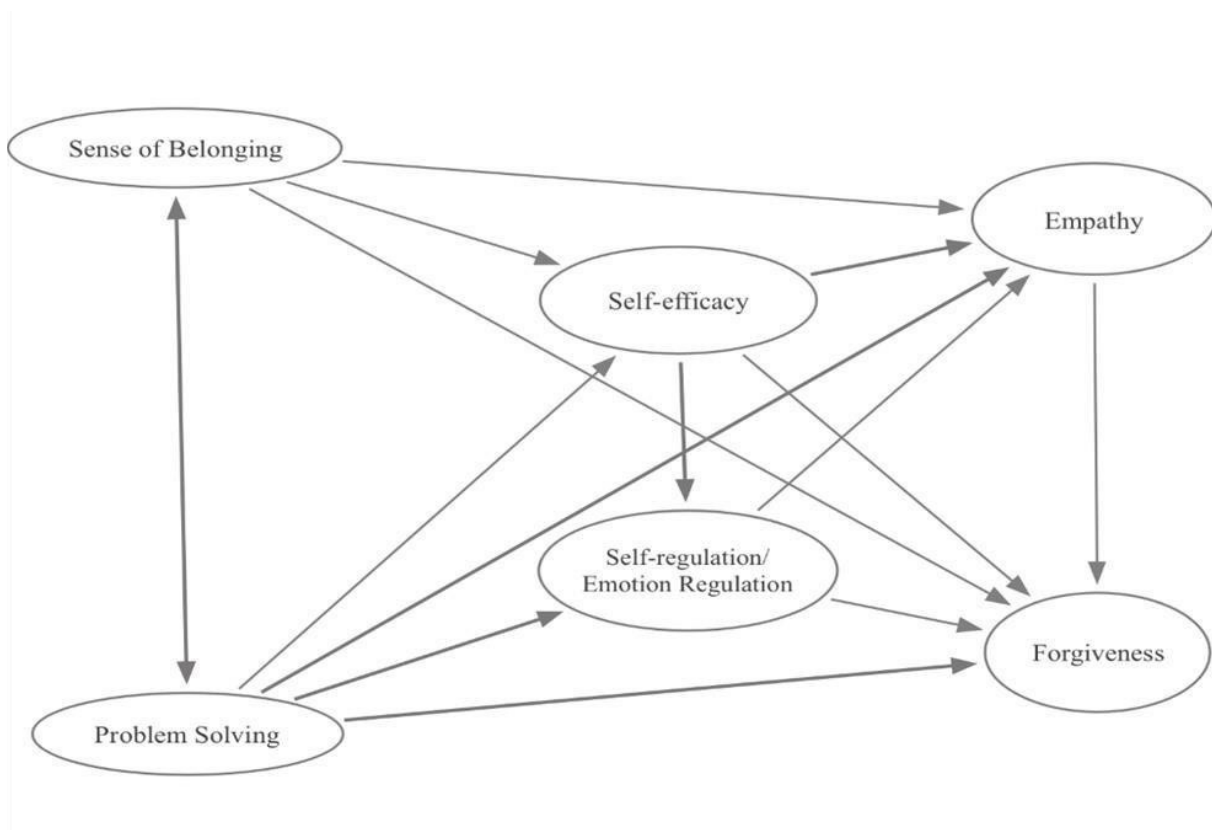
In this model, self-efficacy and life satisfaction are considered as outcome variables.

According to Bandura (1986, 1997), self-efficacy is referred to as one's beliefs about one's own ability to complete a certain task successfully. Based on this premise Künsting et al. (2016) referred to teacher self-efficacy as determined by the extent to which teachers believe they can successfully manage and regulate their emotions, behaviors, and cognition to become successful in different tasks, situations, and conditions in their professions. Studies show that teacher efficacy is positively associated with teaching performance and student learning (Graham et al., 2001). Teachers who are self-regulated themselves not only can set the best examples for their students but also can become more skilled and effective in their instruction.

Teachers' self-efficacy is positively associated with students' achievement (Peters-Burton et al., 2015). In turn the success of students and being effective teachers who can support their students' success acts as vicarious experience, an element that itself is one of the important sources of self-efficacy according to social cognitive theory proposed by Bandura (1986, 1997). This premise makes it important for teachers to be self-regulated and able to manage their emotions, cognition, and behaviors. Being persistent in improving their instruction methods and willing to learn continuously and develop professionally is necessary for teachers (Randi, 2004). This willingness is not possible if teachers are not committed and grateful toward their profession and do not find a purpose and meaning in what they do in life. Therefore, we have set gratitude as a main predictor in this model. Gratitude is also a predictor of other positive variables including life satisfaction (Kong et al., 2019), an outcome in our model.

### *Hypothetical Student Model*

In the hypothetical student model (Figure 6), six scales were included. Two of these, empathy and forgiveness, were treated as outcome variables, whereas the rest were treated as predictors. The latter group of scales included sense of belonging and problem-solving, which were set as exogenous variables, with self-efficacy and self-regulation set as mediators.



**Figure 6 Hypothetical Student Model**

In this model, sense of belonging is set as a main predictor, as it is referred to as a basic human need and a prerequisite for satisfying self-actualization (Maslow, 1962). It is also a central factor in individuals' well-being across diverse cultures (Baumeister & Leary, 1995). In academic settings, sense of belonging plays a key role in students' motivation and persistence (Tinto, 2017). Further, students' sense of

belonging is a stronger predictor of students' well-being. It has an inverse relationship with negative affect, and it is positively associated with self-efficacy, self-regulation, positive affect, and academic and life satisfaction (Saroughi & Kitsantas, 2020).

The other variables in the student model are self-regulation and self-efficacy, which are important factors in students' success and well-being. Students who are self-efficacious and believe in their own ability to self-regulate and manage their behaviors, emotions, and cognition are more persistent and effortful in achieving their desired goals (Bandura, 1986, 1997). These students are also more persistent in finding ways to solve their problems when facing difficulties and encountering challenging situations (Schunk & Zimmerman, 2006). Self-efficacious individuals, by employing self-regulatory strategies, can proactively adapt coping strategies that help them better adjust to their stressors (Schlossberg, 1984) and experience a higher level of well-being (Baumeister, 2002).

Students' self-efficacy and self-regulation are factors that are both influential on and influenced by social relationships and environment (Cattelino et al., 2019) and are related to how individuals feel if they are supported and belonged or marginalized by their environment. Self-regulation is teachable and can be learned and developed through modeling in different stages of life. Interventional programs that foster students' self-regulation can be adapted by teachers (Kitsantas & Zimmerman, 2006). Studies show that teaching self-regulatory strategies promotes students' emotion-regulation and helps them to both meet their educational needs and solve their social and relational problems. It also enhances students' empathy (Lizarraga et al., 2003).

## 4. Results

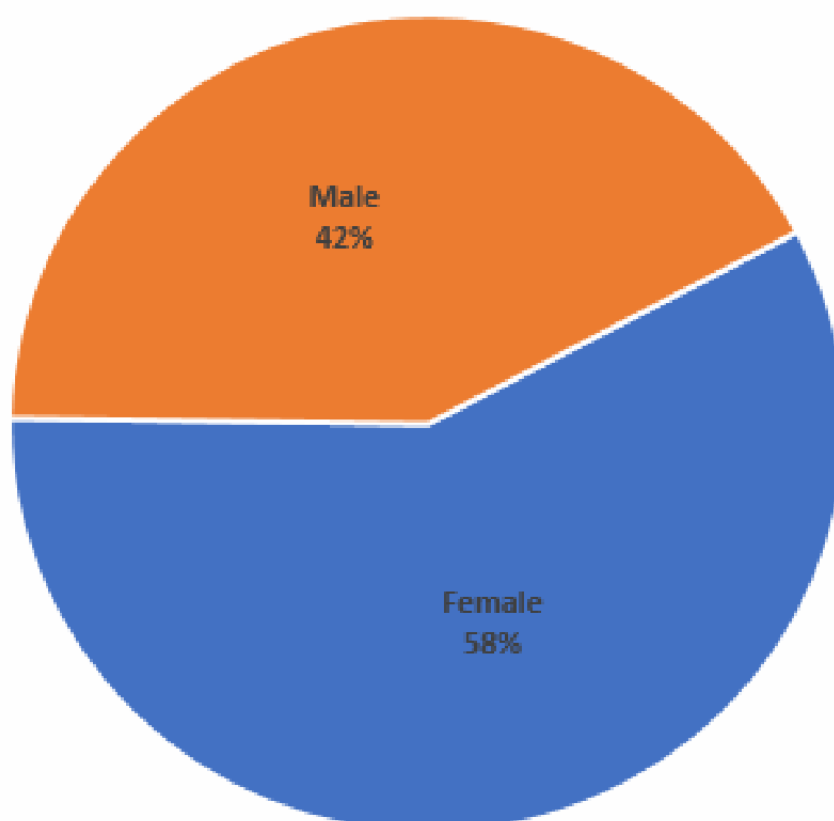
In this section, we report frequency information for demographic variables, independent samples t-tests, and reliability analysis results. In addition, we include results of three exploratory structural equation models preceded by confirmatory factor analysis. We used mean scale scores based on items retained from CFA. Results are given for each proposed model as well as the correlation results between concepts. Due to the large sample size, having too much power resulting in spurious statistical significance is an important consideration. For this study, effect sizes are consistently utilized to help ensure statistically significant results are interpreted appropriately. Cohen's (1988) well-accepted interpretations for effect sizes are utilized (i.e., minimal, typical, substantial). Statistically significant results that have less than minimal effect sizes need to be treated with caution. Analysis was conducted in SPSS 27.0 with SEMs tested using Amos. Each of the three models-general, instructors, and students- were tested with CFA analysis followed by SEM analysis. Thus, both direct and indirect effects are reported.

Bootstrapping was used to determine the specific indirect effects. To conduct the bootstrapping, missing data was removed (i.e., only completed surveys were utilized for those survey questions required by each analysis). Goodness of fit statistics appropriate for large samples are reported for each model. R<sup>2</sup> results for each endogenous variable (i.e., variable with an arrow leading to it) show the percentage of variance explained by the variables leading to the endogenous variable collectively.

## Demographic Information

### *Gender*

The sample has slightly more female than male survey respondents (Figure 7). The pattern of distribution for gender within each survey type was similar for school students, schoolteachers, and university students; however, university instructors have more male than female survey respondents as shown in Table 3. There was some variation in distribution of gender across countries, as can be seen in Table 4. Specifically, a larger number of females than males were sampled in all countries surveyed, with the exceptions of Morocco (52% males), Kenya (53% males), and Bangladesh (50% males).



**Figure 7** Distribution of Survey Respondents by

**Table 3 Distribution of Respondent Gender by Survey Type**

Survey Type	Gender				Total Count
	Female		Male		
	Count	%	Count	%	
School student	6,656	59	4,691	41	11,347
Schoolteacher	1,270	58	939	42	2,209
University student	2,494	57	1,887	43	4,381
University instructor	249	42	341	58	590
<b>Total</b>	<b>10,669</b>	<b>58</b>	<b>7,858</b>	<b>42</b>	<b>18,527</b>

**Note:**  $\chi^2=63.29$ ,  $p < .001$ ; Cramer's  $V = .06$ ,  $p < .001$

**Table 4 Distribution of Respondent Gender by Country**

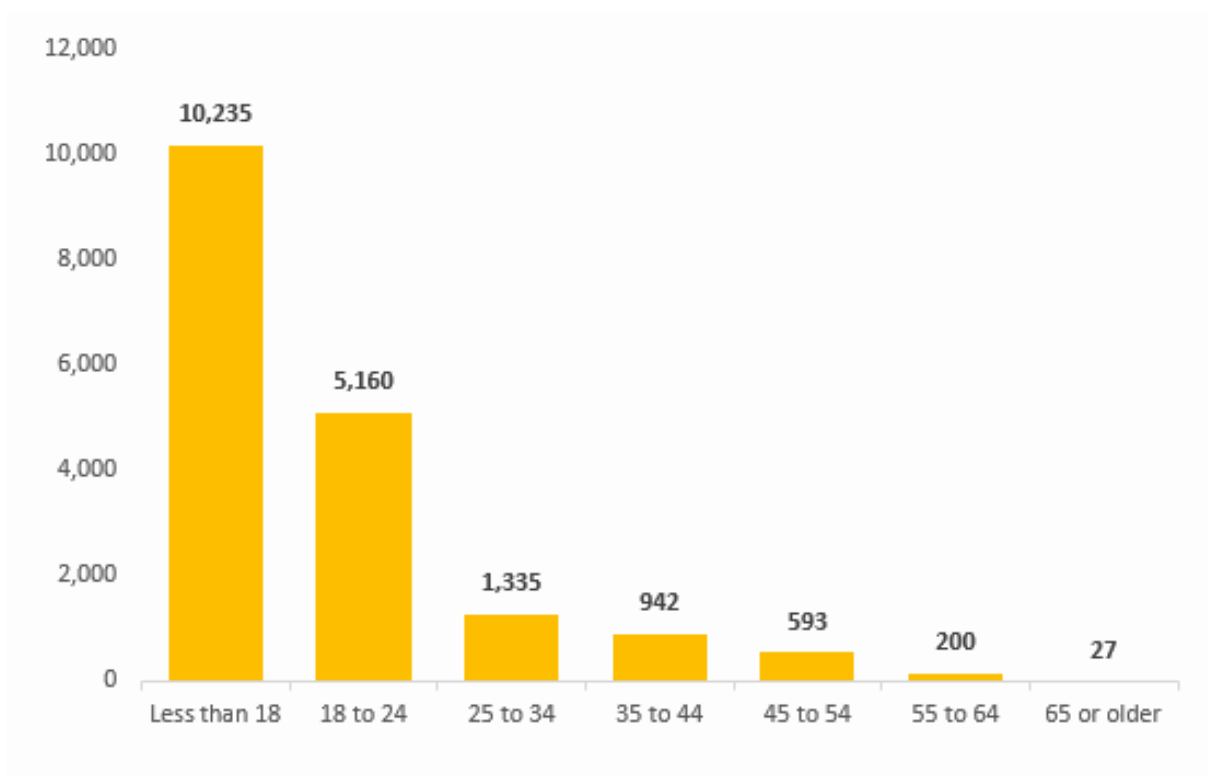
Country	Gender				Total Count
	Female		Male		
	Count	%	Count	%	
India	1630	61	1025	39	2655
Bosnia	1217	58	884	42	2101
Bangladesh	778	50	774	50	1552
Kyrgyzstan	1058	69	477	31	1535
Morocco	593	48	633	52	1226
Algeria	754	62	468	38	1222
Tanzania	597	51	568	49	1165
Kenya	547	47	615	53	1162
Malaysia	596	55	486	45	1082
Indonesia	555	56	439	44	994
Mauritius	642	66	324	34	966
Sudan	571	60	377	40	948
Jordan	511	57	393	43	904
Tatarstan	447	62	275	38	722
USA	173	59	120	41	293
<b>Total</b>	<b>10,669</b>	<b>58</b>	<b>7,858</b>	<b>42</b>	<b>18,527</b>

Note:  $X^2 = 2978.42$   $p < .001$ ; Cramer's  $V = .23$ ,  $p < .001$



## Age

Information on age was collected from all survey respondents. This variable was operationalized as an ordinal variable, with age groups of less than 18, 18–24, 25–34, 35–44, 45–54, 55–64, 65–74, and 75 or older. For the analysis purposes, the age groups of 65–74 and 75 and older were merged to create a 65 or older category. This occurred due to the small sample size for 65 or older (27 respondents in total). The distribution of survey respondents by age is shown in Figure 8. The largest category reported as less than 18 years old ( $n = 10,235$ ; 56%) and the second largest category was 18–24 ( $n = 5,160$ ; 28%). Table 5 shows the distribution of respondent age by survey type with less than 18 primarily being school students (98%), and 18–24 primarily being university students (72%). The other age categories primarily include schoolteachers and university instructors.



**Figure 8 Distribution of Survey Respondents by Age**

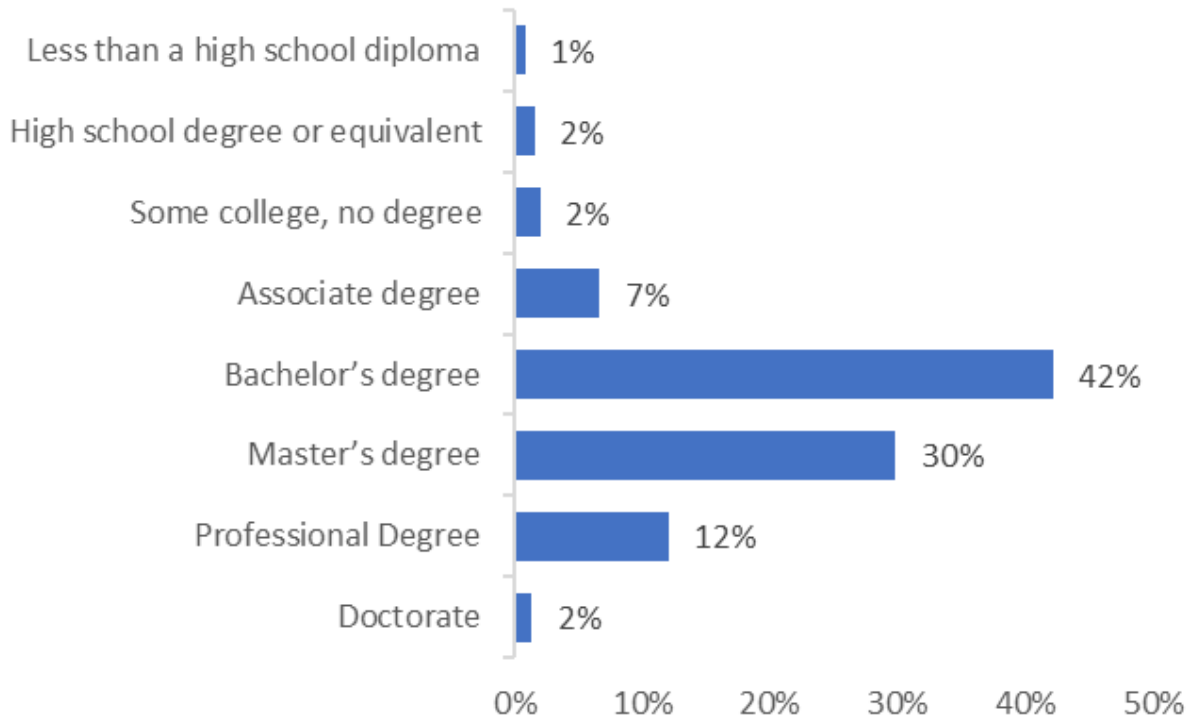
**Table 5 Respondent Age by Survey Type**

Survey type										
	School student		School-teacher		University student		University instructor			
Age	Count	%	Count	%	Count	%	Count	%	Total Count	Total %
Less than 18	9,980	98	31	0	224	2	0	0	10,235	100
18 to 24	1,283	24	139	3	3,714	7	24	1	5,160	100
25 to 34	49	4	719	54	364	2	203	15	1,335	100
35 to 44	11	1	692	74	49	5	190	20	942	100
45 to 54	1	0	452	76	15	3	125	21	593	100
55 to 64	3	2	159	79	1	1	37	18	200	100
65 or older	9	33	9	33	0	0	9	33	27	100
<b>Total</b>	<b>11,336</b>	<b>61</b>	<b>2,201</b>	<b>12</b>	<b>4,367</b>	<b>2</b>	<b>588</b>	<b>3</b>	<b>18,492</b>	<b>100</b>

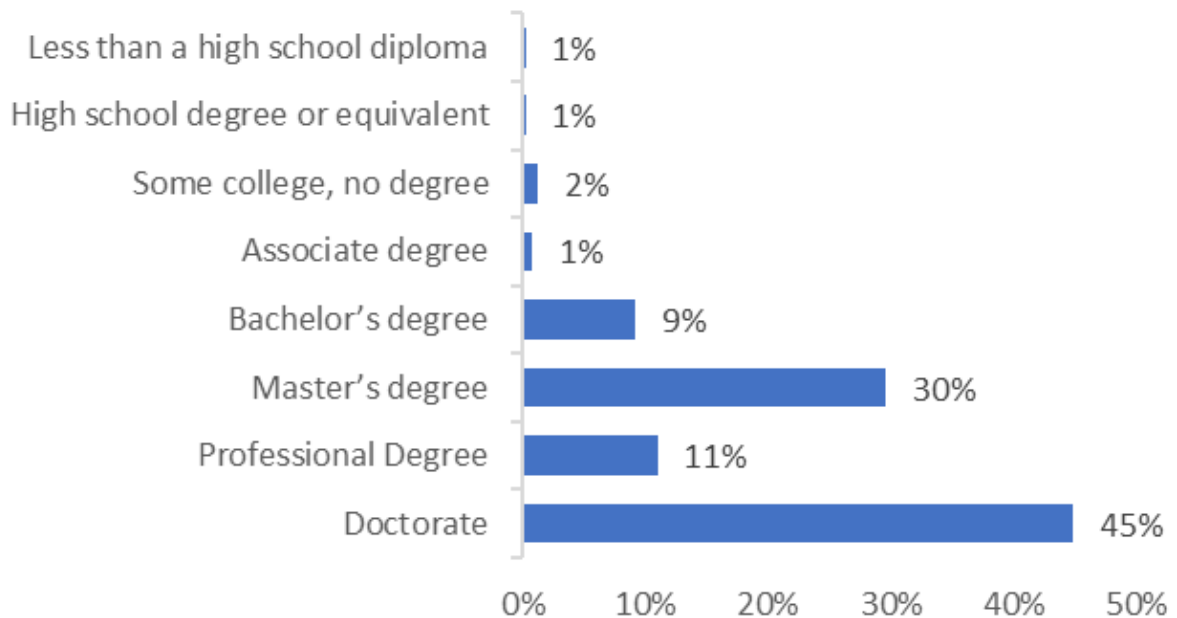
Note.  $\chi^2 = 24,836.64$ ,  $p < .001$ ; Cramer's  $V = 1.16$ ,  $p < .001$

### *Highest Level of Education Completed*

The education question asked schoolteachers and university instructors for their highest level of education completed and included eight categories (see Figure 9). Relationship of highest education level for schoolteachers and university instructors is shown in Figures 9 and 10. Most schoolteachers had a bachelor's or master's degree (72%), whereas most university instructors had a master's or doctorate degree (75%).



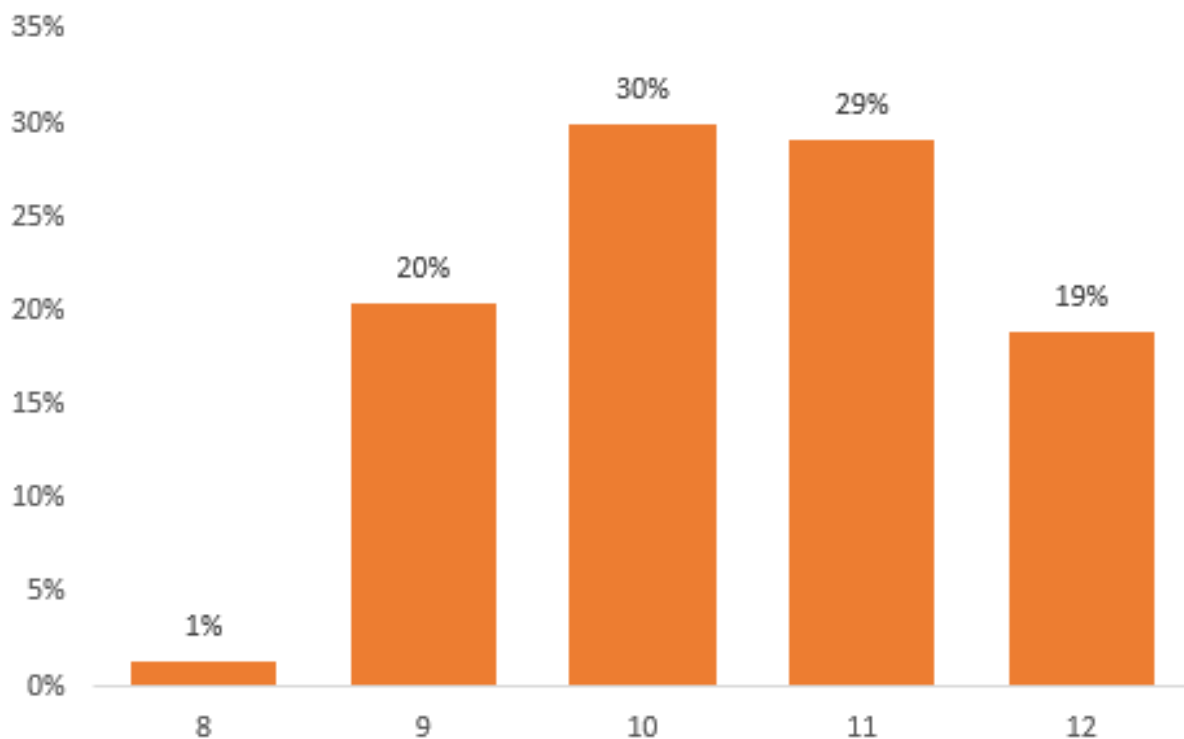
**Figure 9 Distribution of Highest Level of Education for Schoolteachers**



**Figure 10 Distribution of Highest Level of Education for University Faculty**

### *Current Grade in School*

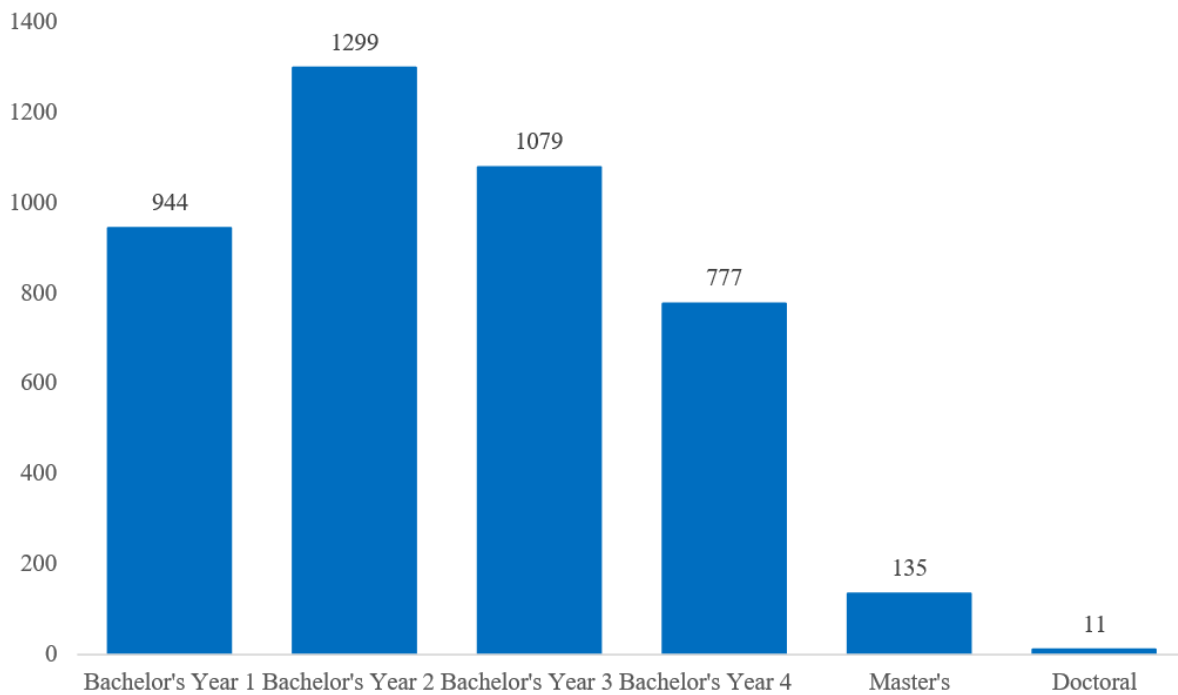
Information was collected on the grade level of school students. Distribution of grade is presented in Figure 11. Most school students surveyed were in grades 9–12. More females than males were surveyed for all grade levels. Most school student respondents were aged less than 18 (n = 9,880; 89%). Older students were primarily in grades 11 and 12.



**Figure 11 Distribution of Grade**

### *Current Year in University*

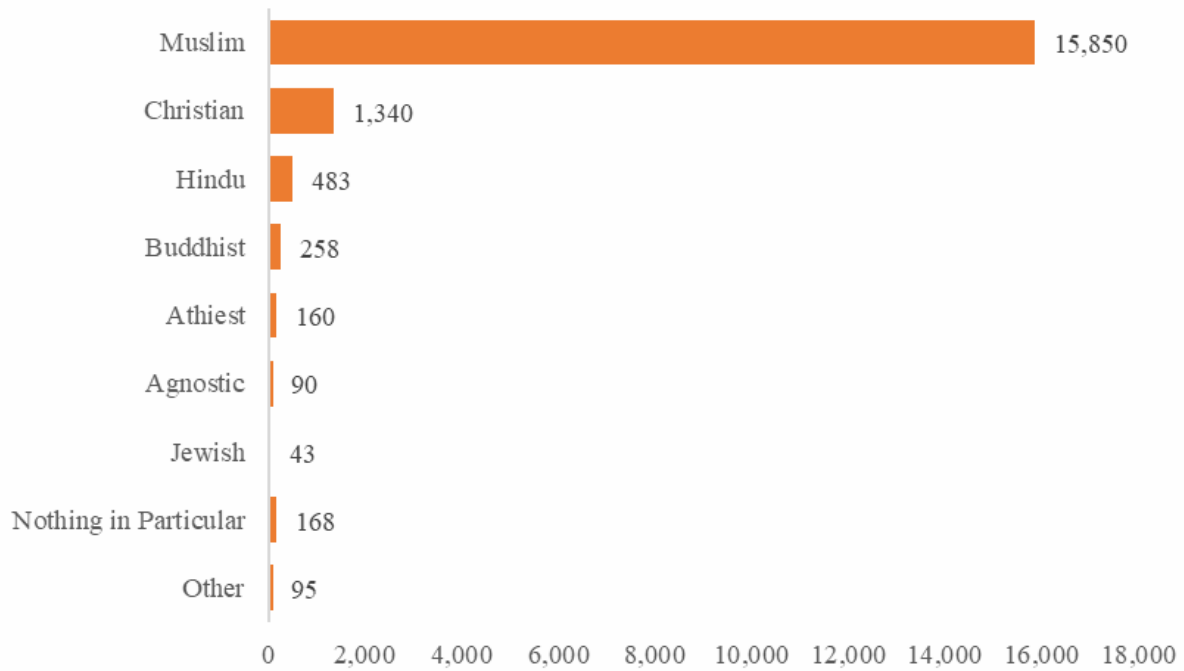
A separate question was used to collect information on current university year for students. Distribution of current year in university is presented in Figure 12. The sample sizes for the master's and doctoral students were relatively low, so their results in this section should be interpreted with caution. More females were surveyed than males, except for the master's and doctoral students. Most university students were 18–24 years in age.



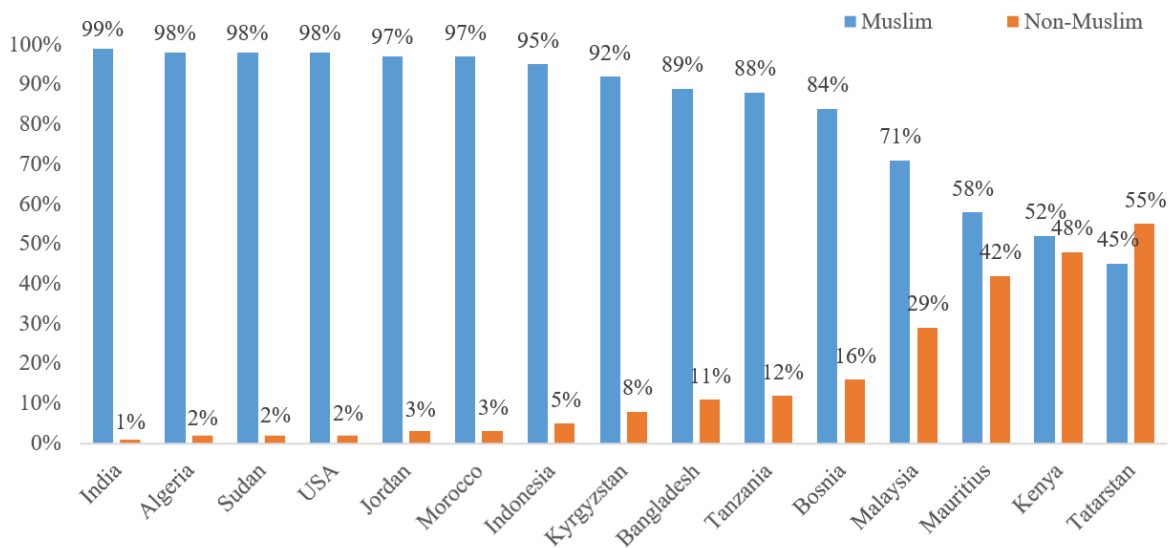
**Figure 12 Distribution of Current University Year**

### *Religion*

The religion question asked each respondent about their current religion. The distribution of religion in the overall sample is presented in Figure 13. Most respondents (86%) are Muslim. Christians are the second largest group of respondents (7%). Due to the small sample sizes for non-Muslim religions, the variable was recoded to Muslim and non-Muslim. Results are similar for comparisons between Muslims and non-Muslims by gender, age, and education level. Figure 14 shows that most respondents are Muslim in all countries except for Tatarstan (55% non-Muslim). Mauritius and Kenya each have a small Muslim majority (58% and 52%, respectively). For all other countries, the respondents are less than 20% non-Muslim.



**Figure 13 Distribution of Religion**



**Figure 14 Distribution of Religion Within Each Country**

## Reliability Analysis

A summary of scales administered in the survey is shown in Table 6. An X in this table indicates that the scale was administered to the corresponding population. For example, the sense of belonging scale was administered to school students and university students but not to schoolteachers and university faculty. A list of survey items is provided in Appendix A. Items were administered on a 1 to 4 Likert-type scale.

**Table 6 Summary of Administered Scales by Survey Type**

Scale	School student	School teacher	University instructor	University student
Empathy	X	X	X	X
Forgiveness	X	X	X	X
Religiosity	X	X	X	X
Self-efficacy, instructors only		X	X	
Self-efficacy, students only	X			X
Collectivistic vs. individualistic orientation	X	X	X	X
Problem solving	X			X
Meaning making	X	X	X	X
Sense of belonging	X			X
Hope		X	X	X
Life satisfaction		X	X	X
Gratitude	X	X	X	X
Emotion regulation	X	X	X	X
Self-regulation	X	X	X	X

Reliability analysis was utilized for the initial scale development, inter-item correlations, corrected item-total correlations, and Cronbach's alpha if item deleted were utilized to refine the scales. An assumption of reliability analysis is that all inter-item correlations are positive. Reverse coding was utilized when needed to achieve the positive correlations. However, some items were deleted (the list of items removed in each scale is available in the technical report posted on the website) because it was not possible to obtain positive correlations across all items in the scale. Corrected item-total correlations and Cronbach's alpha if item deleted were then utilized to remove scale items to improve the overall internal consistency of the scale. Cronbach's alpha was then computed for each scale and, in the case of student self-efficacy, its corresponding subscales.

A close examination of the reliability results in Tables 7 and 8 suggests three potential issues:

- The subscales for student self- efficacy tend to have fewer survey questions than the main scales. Statistically, the more questions included in the reliability analysis the higher Cronbach's alpha tends to be.
- When we consider that some of the measures used in this study were originally developed for very different populations (generally those from North America or Western Europe), it is easy to see why some scales did not perform very well in some countries that are mostly located in Africa, the Middle East, and Central Asia. It is also reasonable that some survey questions needed to be deleted to optimize the scale for the overall sample.
- Lower reliabilities in a few scales may be due to translation issues despite the rigor in translation and back translation procedures.



For this report, the scales were optimized for the overall scale, and then results for subsamples were calculated using the same scale questions determined to lead to the best scale for the overall sample. Future research should explore if different populations need different configurations of the survey questions to achieve the most optimal scale. For example, a question deleted for one country may be very important in another country.

All the reliability results for the scales in the overall sample are acceptable ( $> 0.65$ ). A generally accepted rule is that a Cronbach's alpha of 0.6 to 0.7 indicates an acceptable reliability level, 0.8 to .95 is very good, and greater than .95 may be an indicator of abundance and is not necessarily good (Ursachi, Horodnic, & Zait, 2015).

Table 7 Scale Reliability Estimates by Country

Scale	Overall	Bosnia	Indonesia	Jordan	Kyrgyzstan	Morocco	Tanzania	Tatarstan	Bangladesh	Algeria	India	Kenya	Mauritius	Sudan	Malaysia	USA
Empathy	0.66	0.69	0.69	0.64	0.64	0.59	0.58	0.74	0.60	0.68	0.63	0.60	0.64	0.62	0.69	0.76
Forgiveness	0.76	0.67	0.70	0.72	0.69	0.62	0.74	0.66	0.72	0.61	0.75	0.86	0.85	0.56	0.76	0.73
Religiosity/ spirituality	0.86	0.85	0.88	0.88	0.82	0.82	0.80	0.88	0.78	0.86	0.68	0.77	0.88	0.69	0.91	0.88
Self-efficacy, Instructors only	0.93	0.89	0.85	0.90	0.93	0.95	0.87	0.86	0.81	0.91	0.91	0.92	0.87	0.91	0.92	0.93
Self-efficacy, students only	0.67	0.70	0.70	0.61	0.58	0.68	0.71	0.73	0.55	0.64	0.59	0.77	0.64	0.57	0.67	0.75
Collectivistic vs. individualistic orientation	0.67	0.72	0.67	0.74	0.58	0.61	0.63	0.66	0.70	0.72	0.64	0.60	0.62	0.57	0.62	0.66
Problem solving	0.80	0.83	0.83	0.82	0.75	0.75	0.77	0.85	0.76	0.78	0.73	0.76	0.82	0.71	0.87	0.84
Meaning making	0.76	0.75	0.73	0.69	0.81	0.74	0.66	0.86	0.59	0.78	0.65	0.71	0.76	0.68	0.79	0.87
Sense of belonging	0.82	0.80	0.75	0.81	0.86	0.76	0.81	0.88	0.76	0.81	0.79	0.75	0.83	0.77	0.84	0.84
Hope	0.79	0.81	0.80	0.79	0.76	0.83	0.65	0.84	0.73	0.80	0.75	0.76	0.77	0.69	0.85	0.81
Life satisfaction	0.69	0.68	0.60	0.68	0.72	0.71	0.61	0.84	0.65	0.73	0.69	0.70	0.71	0.63	0.82	0.78
Gratitude	0.65	0.73	0.75	0.54	0.62	0.64	0.67	0.74	0.53	0.57	0.57	0.66	0.63	0.46	0.75	0.79
Emotion regulation	0.67	0.76	0.68	0.69	0.72	0.61	0.65	0.80	0.62	0.67	0.58	0.64	0.65	0.43	0.70	0.79
Self-regulation	0.73	0.77	0.68	0.70	0.75	0.71	0.68	0.75	0.67	0.70	0.69	0.70	0.72	0.62	0.76	0.78

Note. Red font indicates low reliabilities < .60.

**Table 8 Scale Reliability Estimates by Survey Type**

Scale	Overall Sample	Survey Type			
		School Student	School Teacher	University Instructor	University Student
Empathy	0.66	0.65	0.73	0.67	0.65
Forgiveness	0.76	0.75	0.80	0.80	0.74
Religiosity	0.86	0.86	0.86	0.86	0.87
Self-efficacy, instructors only	0.93	N.A.	0.93	0.92	N.A.
Self-efficacy, students only	0.67	0.64	N.A.	N.A.	0.70
Collectivistic vs. individualistic orientation	0.67	0.64	0.74	0.73	0.69
Problem solving	0.80	0.79	N.A.	N.A.	0.82
Meaning making	0.76	0.76	0.80	0.78	0.74
Sense of belonging	0.82	0.82	N.A.	N.A.	0.81
Hope	0.79	N.A.	0.81	0.79	0.78
Life satisfaction	0.69	N.A.	0.74	0.76	0.66
Gratitude	0.65	0.62	0.72	0.66	0.68
Emotion regulation	0.67	0.65	0.75	0.72	0.70
Self-regulation	0.73	0.71	0.78	0.74	0.73

## Scale Descriptive Analysis

For each scale, the underlying items were averaged to form mean scale scores. For each scale, individuals with missing values were eliminated by listwise deletion. Summary statistics for all scale scores are presented in Table 9. Further breakdown of scale means by survey type and country is presented in Tables 10 and 11, with corresponding visualizations in Figures 15, 16, 17, and 18. Additional breakdowns are shown in Tables 12 and 13. For age (Table 12), independent samples t-tests and Cohen's *d* were calculated based on grouping age into two groups: 24 years old or less and 25 years or older.

**Table 9 Summary Statistics for Scales**

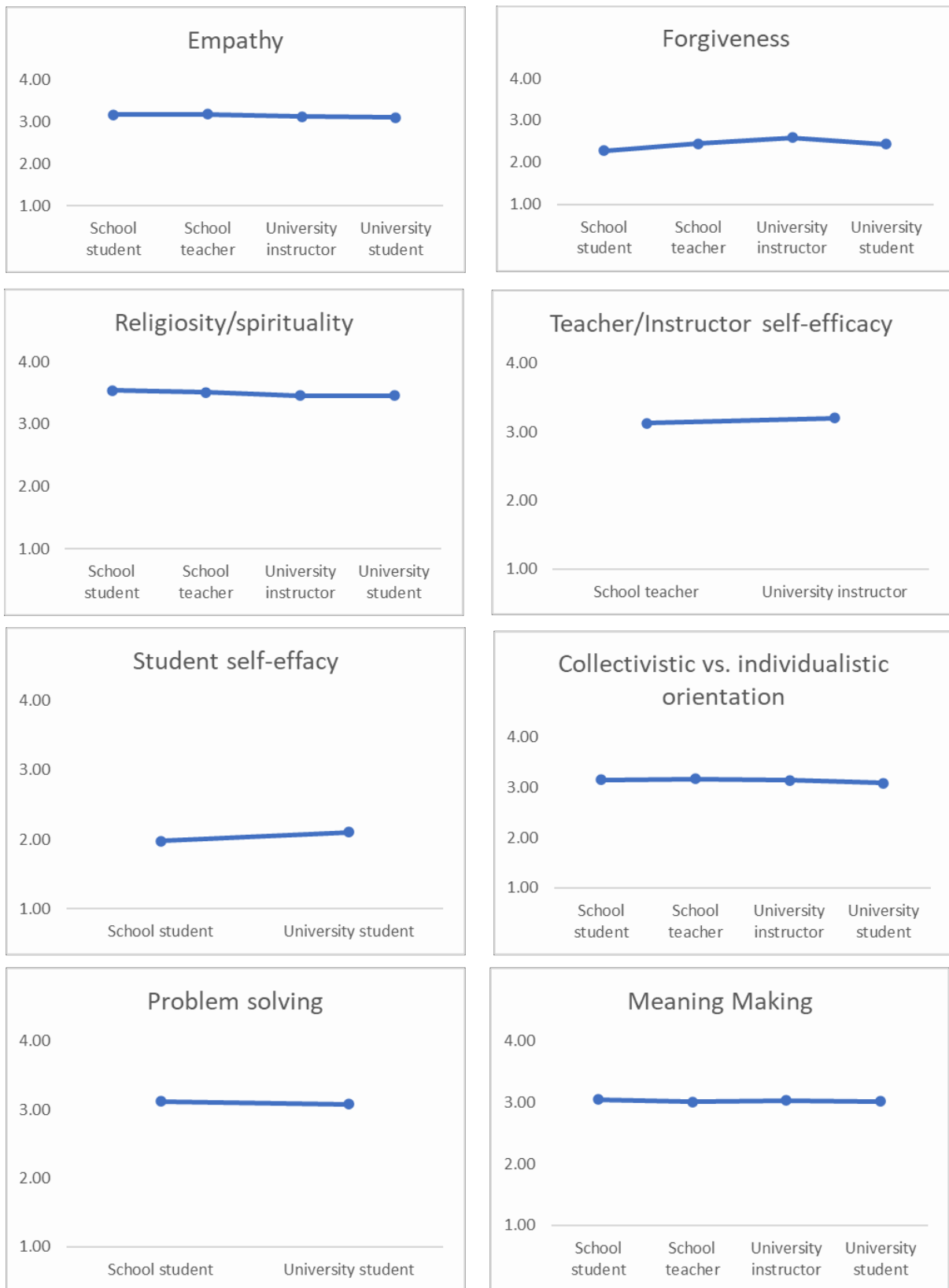
Scale	n	Mean	SD
Empathy	17,985	3.16	0.53
Forgiveness	17,259	2.35	0.60
Religiosity	17,440	3.52	0.69
Self-efficacy, instructors only	2,632	3.14	0.56
Self-efficacy, students only	15,294	2.04	0.61
Collectivistic vs. individualistic orientation	17,711	3.21	0.46
Problem solving	15,009	3.11	0.48
Meaning making	18,060	3.03	0.63
Sense of belonging	14,810	2.97	0.47
Hope	7,051	3.19	0.56
Life satisfaction	5,018	2.89	0.58
Gratitude	18,150	3.02	0.56
Emotion regulation	17,805	3.07	0.49
Self-regulation	18,018	3.22	0.59

**Table 10 Scale Means by Survey Type**

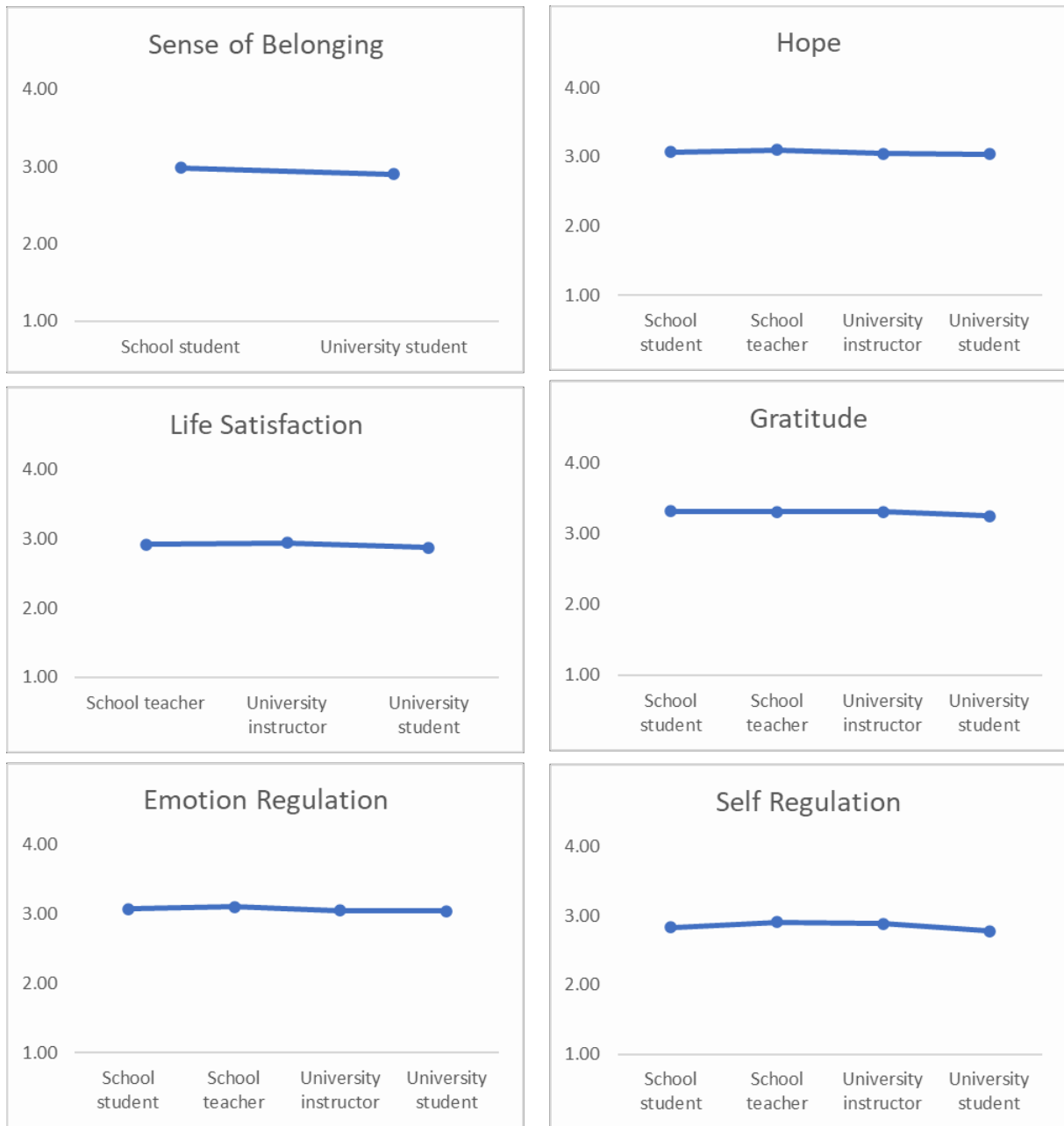
Scale	Survey Type			
	School student	School teacher	University instructor	University student
Empathy	3.17	3.18	3.13	3.10
Forgiveness	2.28	2.45	2.59	2.44
Religiosity/spirituality	3.54	3.51	3.46	3.46
Self-efficacy, instructors only	N.A.	3.13	3.20	N.A.
Self-efficacy, students only	2.01	N.A.	N.A.	2.12
Collectivistic vs. individualistic orientation	3.23	3.22	3.17	3.14
Problem solving	3.12	N.A.	N.A.	3.08
Meaning making	3.07	2.86	2.91	3.03
Sense of belonging	2.99	N.A.	N.A.	2.91
Hope	N.A.	3.25	3.25	3.14
Life satisfaction	N.A.	2.92	2.94	2.87
Gratitude	3.32	3.31	3.31	3.25
Emotion regulation	3.07	3.10	3.05	3.04
Self-regulation	3.24	3.26	3.22	3.13

Table 11 Scale Means by Country

Scale	Bosnia	Indonesia	Jordan	Kyrgyzstan	Morocco	Tanzania	Tatarstan	Bangladesh	Algeria	India	Kenya	Mauritius	Sudan	Malaysia	USA
Empathy	3.02	3.14	3.02	3.27	3.05	3.24	2.90	3.31	3.12	3.26	3.22	3.04	3.19	3.14	3.01
Forgiveness	2.25	2.70	2.37	2.39	2.45	2.87	2.30	2.55	2.27	1.96	2.48	2.07	2.42	2.36	2.31
Religiosity/spirituality	3.09	3.67	3.67	3.36	3.58	3.77	2.34	3.65	3.79	3.63	3.75	3.47	3.84	3.62	3.54
Self-efficacy, instructors only	2.85	3.08	3.16	3.25	2.86	3.53	2.62	3.34	3.07	3.43	3.25	2.89	3.42	3.12	3.04
Self-efficacy, students only	2.00	2.33	2.21	1.91	2.09	2.21	1.86	2.19	2.06	1.87	2.06	1.95	2.09	2.00	1.99
Collectivistic vs. individualistic	3.05	3.11	3.19	3.24	3.17	3.19	2.90	3.50	3.27	3.32	3.22	3.14	3.34	3.03	3.14
Problem solving	3.00	3.05	3.07	3.13	3.10	3.17	2.96	3.31	3.18	3.16	3.25	2.90	3.27	2.90	2.97
Meaning making	2.84	3.18	3.18	2.81	3.10	3.38	2.43	3.23	3.13	2.94	3.27	2.87	3.18	3.08	2.70
Sense of belonging	2.78	2.85	2.96	2.93	2.87	3.15	2.65	3.11	2.91	3.12	3.09	2.91	3.14	2.90	2.74
Hope	3.00	3.05	3.15	3.41	3.07	3.41	3.06	3.11	3.12	3.25	3.44	3.08	3.32	3.24	3.39
Life satisfaction	2.89	2.85	2.81	3.19	2.62	2.82	2.70	2.88	2.76	2.99	2.81	2.89	2.91	3.01	3.01
Gratitude	3.26	3.41	3.10	3.38	3.09	3.55	3.10	3.19	3.20	3.34	3.42	3.30	3.30	3.42	3.54
Emotion regulation	3.00	3.06	3.00	3.19	2.97	3.17	2.82	3.14	3.04	3.09	3.15	3.00	3.06	3.09	2.96
Self-regulation	3.09	3.09	3.08	3.38	3.09	3.45	2.94	3.29	3.19	3.30	3.41	3.10	3.33	3.13	2.87



**Figure 15 Scale Means by Survey Type**



**Figure 16 Scale Means by Survey Type**



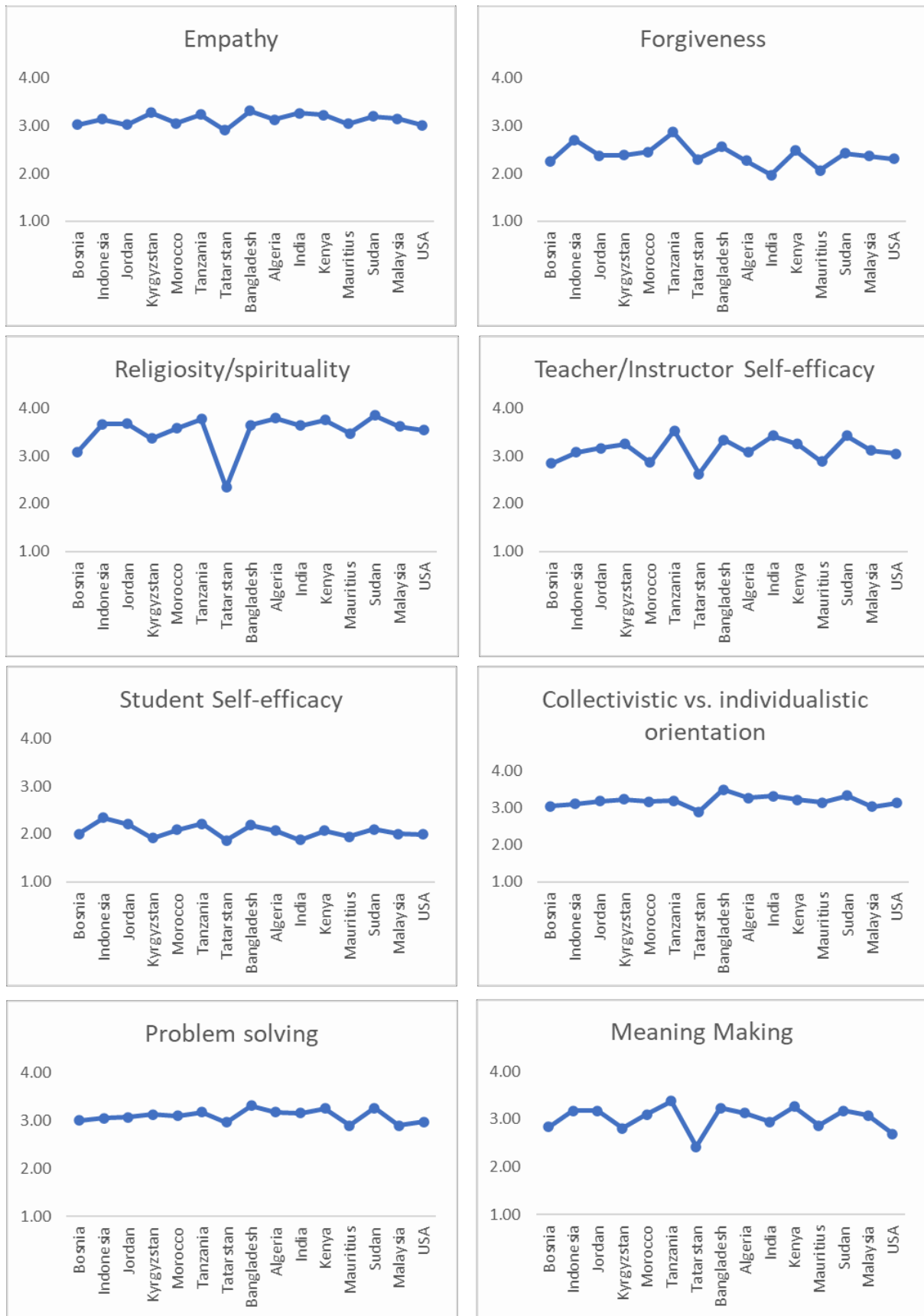


Figure 17 Scale Means by Country

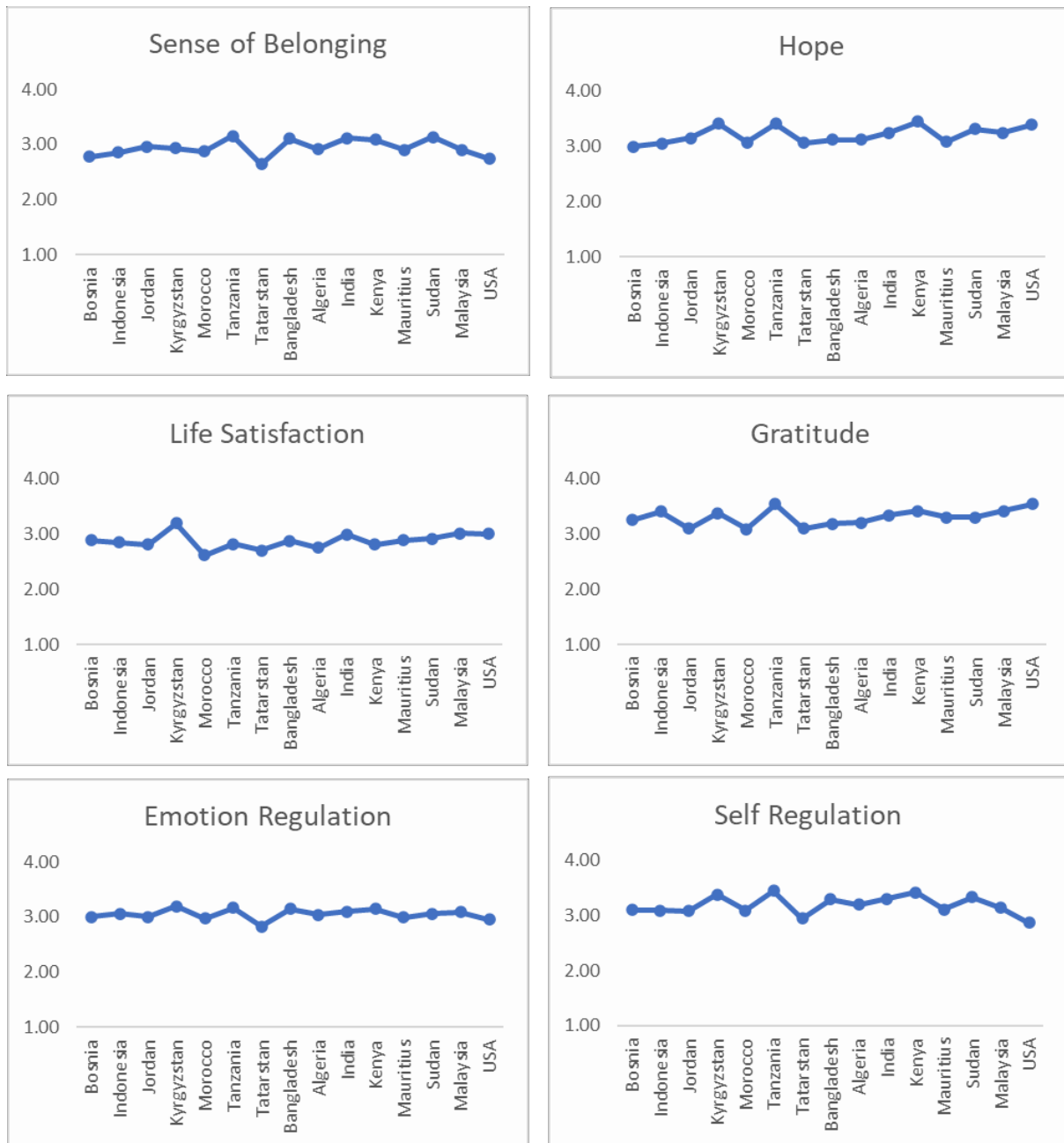


Figure 18 Scale Means by Country

Table 12 Scale Means by Age Category

Scale	Age Category							t-test	Cohen's d
	Less than 18	18 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 or older		
Empathy	3.18	3.10	3.13	3.1	3.2	3.24	2.99	n.s.	.03
Forgiveness	2.28		2.47	2.49	2.54	2.51	2.61	t = 14.15;	.29
Religiosity/spirituality	3.53	3.50	3.54	3.5	3.5	3.30	2.81	n.s.	-.01
Self-efficacy, instructors	3.02	2.99	3.13	3.16	3.20	3.10	3.16	t = 3.25; p < .05	.29
Self-efficacy, students	2.00	2.10	2.18	2.31	2.33	2.60	2.30	t = 4.42; p < .001	.36
Collectivistic vs. Individualistic Orientation	2.00	2.10	2.18	2.31	2.33	2.60	2.30	n.s.	.01
Problem-solving	3.24	3.15	3.19	3.21	3.25	3.24	3.27	n.s.	.05
Meaning Making	3.12	3.09	3.13	3.0	3.1	2.85	2.80	t = - 11.54; p < .001	-.25
Sense of Belonging	3.05	3.06	2.98	2.84	2.85	2.84	2.87	n.s.	.08
Hope	2.99	2.92	3.00	2.9	2.7	3.56	2.62	t = 9.08; p < .001	.22
Life Satisfaction	3.26	3.13	3.20	3.28	3.33	3.24	3.24	t = 4.52 p < .001	.11
Gratitude	3.05	2.85	2.84	2.98	3.01	2.97	2.97	n.s.	.00
Emotion Regulation	3.32	3.27	3.25	3.3	3.3	3.29	3.21	t = 2.71; p < .05	.06
Self-Regulation	3.08	3.04	3.06	3.11	3.13	3.11	2.89	t = 2.76; p < .05	.05

Note. n.s. = not significant

**Table 13 Scale Means by Gender**

Scale	Gender		t-test	Cohen's
	Female	Male		
Empathy	3.20	3.10	t = 12.45;	.19
Forgiveness	2.32	2.40	t = -8.75; p < .001	-.14
Religiosity/spirituality	3.54	3.48	t = 5.51; p < .001	.09
Self-efficacy, instructors only	3.15	3.14	n.s.	.02
Self-efficacy, students only	2.02	2.08	t = -6.18; p < .001	-.10
Collectivistic vs. individualistic orientation	.23	3.17	t = 8.56; p < .001	.13
Problem-solving	3.12	3.10	n.s.	.03
Meaning making	3.03	3.03	n.s.	-.00
Sense of belonging	2.98	2.95	t = 3.85; p < .001	.07
Hope	3.21	3.16	t = 3.89; p < .001	.09
Life satisfaction	2.93	2.84	t = 6.42; p < .001	.16
Gratitude	3.35	3.24	t = 13.28;	.20
Emotion regulation	3.09	3.03	t = 8.77; p < .001	.13
Self-regulation	3.25	3.17	t = 8.14; p < .001	.12

**Note.** n.s. = not significant. Cohen's d results greater than .2 but less than .5 should be interpreted as a minimal relationship.

## Confirmatory Factor Analysis

We used factor analysis to confirm the structure of each scale utilized in the structural equation modeling. Three separate confirmatory factor analysis procedures were conducted (one for each structural equation model). Each item flagged by the analysis as not significant was individually removed and the factor analysis was performed again in order to evaluate the adequacy of factor loadings. This process was repeated until a sound factor structure was found.

### *Confirmatory Factor Analysis and Structural Equation Modeling*

To explore the three models of interest for the general sample, instructors, and students, CFAs were first conducted. In addition to using the CFA results to examine the items and determine the final items removed, the correlation matrices were also examined to help ensure spurious statistical results are not utilized in the final model. Mediation was addressed by analyzing direct effects and the specific indirect effects. Specific indirect effects were determined using bootstrapping, which requires no missing data. Missing data was eliminated by removing all survey respondents who did not have complete responses for the final survey questions of interest in each model. Goodness of fit statistics are reported for all CFA and SEM models. As this work is exploratory in nature and due to the need to use goodness of fit statistics minimally impacted by large sample sizes, the following fit indices (and their liberal cut-offs for fit) are utilized: CFI ( $> 0.90$ ), and RMSEA ( $< 0.10$ ). Chi-square is also reported, since it is standard, but it is sensitive to sample size and rarely not significant for social science SEM analysis, as is desirable (ideally  $p > .05$ ).

### *Final SEM Models*

After conducting analysis, the paths of our hypothetical models that were not found significant were removed from each of their related models, and the final models were developed. These final models are as follows.

**General Model.** For this analysis items were removed or kept based on the reliability analysis. Table 14 shows the correlation matrix. Most of the relationships show substantial Pearson correlations ( $> .5$ ), with some typical relationships ( $> .3$  and  $< .5$ ). Forgiveness consistently resulted in less than minimal relationships ( $< .1$ ). These results, in combination with initially low goodness of fit results, led to forgiveness being removed from the model. Final goodness of fit statistics for the CFA model:  $X^2 = 5694.80$ ,  $p < .001$ ; CFI = .92 and RMSEA = .04, showing that the final CFA model had reasonable goodness of fit. Table 15 lists the final CFA factor loadings for the general model.

The SEM results are shown in Figure 19. Model fit was acceptable with  $X^2 = 5407.58$ ,  $p < .001$ ; CFI = .92 and RMSEA = .04. Based on R<sup>2</sup> results, 41% of the variance in gratitude is explained in the teacher model and 36% for collectivistic/individualistic orientation.

Mediation results consistently showed partial mediation. Table 16 provides the mediation pathways and relationships found in the general model.

**Table 14 General CFA Model Correlation Matrix**

	Collectivistic/ Individualistic Orientation	Meaning Making	Gratitude	Empathy	Forgiveness
Collectivistic/ Individualistic Orientation	1.00	.38	.50	.38	.02
Meaning making	.38	1.00	.32	.33	.09
Gratitude	.50	.32	1.00	.62	.06
Empathy	.56	.33	.62	1.00	.10
Forgiveness	.02	.09	.06	.10	1.00

**Table 15 General CFA Model Factor Loadings**

Items	Collectivistic/ Individualistic Orientation	Meaning Making	Gratitude	Empathy
CIO_Identity	.322			
CIO_JobBetter	.322			
CIO_PeerPrize	.416			
CIO_PeerWellbeing	.485			
CIO_PleasureTime	.370			
CIO_Cooperate	.535			
CIO_ParentsChildren	.505			
CIO_RespectGrpDecisions	.447			
CIO_Family	.472			
MM_LifeMeaningful		.632		
MM_LifesPurpose		.673		
MM_FeelSignificant		.654		
MM_Mission		.651		
MM_LifeMeaning		.513		
Gratitude_LongList			.612	
Gratitude_Variety			.486	
Gratitude_Appreciate			.561	
Gratitude_Thankful			.613	
Empathy_TwoSides				.580
Empathy_Upset				.503
Empathy_Criticizing				.542
Empathy_Sides				.459
Empathy_Perspective				.555



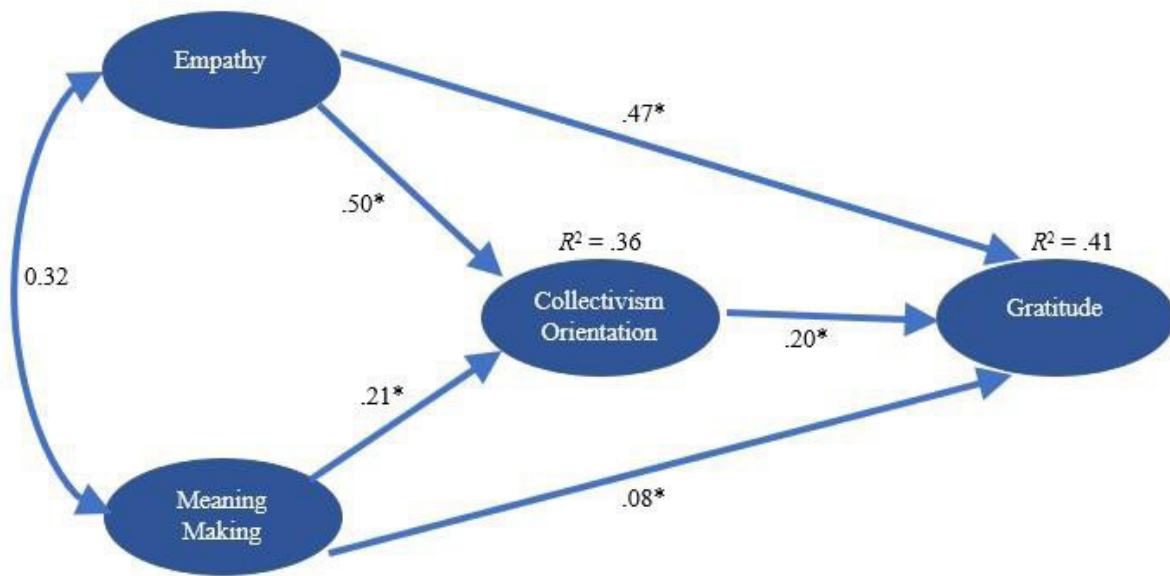


Figure 19 Final General Model

Table 16 General Model Mediation Testing

Relationships	Direct Effect	Indirect Effect	C.I. Lower Bound	C.I. Upper Bound	Conclusion
Meaning making to collectivism/individualism orientation to gratitude	.084	.038*	.031	.047	Partial Mediation
Empathy to collectivism/individualism	.469	.115*	.096	.137	Partial Mediation

Note. Bootstrap sample = 2,000 with replacement. \*  $p < .05$

**Instructor Model.** In this model items were removed and kept based on the reliability analysis. Table 17 shows the correlation matrix. Most of the relationships show substantial Pearson correlations ( $> .5$ ), with some typical relationships ( $> .3$  and  $< .5$ ) and minimal ( $< .3$  and  $> .1$ ) relationships. None of the correlations are below a minimal relationship. Final goodness of fit statistics for the CFA model:  $X^2= 3611.72$ ,  $p < .001$ ; CFI =.92 and RMSEA = .04, showing that the final CFA model had reasonable goodness of fit. Table 18 lists the final CFA factor loadings for the teacher model.

The SEM results are shown in Figure 20. Model fit was acceptable with  $X^2= 3642.49$ ,  $p < .001$ ; CFI =.92 and RMSEA = .04. Based on R2 results, 34% of the variance in self-efficacy is explained in the teacher model and 43% for life satisfaction. Emotion regulation resulted in 36% of its variance being explained, and 41% for self-regulation. Mediation results consistently showed partial mediation. Table 19 provides the mediation pathways and relationships found in the instructor model.

**Table 17 Instructor CFA Model Correlation Matrix**

	Meaning making	Self-efficacy	Life satisfaction	Gratitude	Emotion regulation	Self-regulation
Meaning making	1.00	.35	.12	.18	.58	.29
Self-efficacy	.35	1.00	.39	.45	.25	.50
Life satisfaction	.12	.39	1.00	.58	.52	.48
Gratitude	.18	.45	.58	1.00	.58	.52
Emotion regulation	.58	.25	.52	.58	1.00	.62
Self-regulation	.29	.50	.48	.52	.62	1.00

**Table 18 Final Instructor CFA Model Factor Loadings**

Items	Meaning making	Self-efficacy	Life satisfaction	Gratitude	Emotion regulation	Self-regulation
MM_LifeMeaningful	.706					
MM_LifePurpose	.740					
MM_FeelSignificant	.675					
MM_Mission	.713					
MM_LifeMeaning	.518					
TSE_LocalInvolve		.481				
TSE_Safe		.662				
TSE_StudentsTrust		.685				
TSE_Dropout		.635				
TSE_Absenteeism		.681				
TSE_DoWell		.702				
TSE_TeachingSkills		.615				
TSE_DifficultStudents		.696				
TSE_LackofSupport		.676				
TSE_OnTask		.650				
TSE_StudentsMemory		.669				
TSE_AdverseCommuni		.695				
TSE_WorkTogether		.683				
TSE_DoWork		.685				
TSE_LowInterest		.690				
LS_LifeIdeal			.564			
LS_LifeExcellent			.731			
LS_LifeSatisfied			.679			
LS_ImportantThings			.650			
LS_ChangeNothing			.438			
Gratitude_Thankful				.658		
Gratitude_LongList				.652		
Gratitude_Variety				.554		

Items	Meaning making	Self-efficacy	Life satisfaction	Gratitude	Emotion regulation	Self-regulation
Gratitude_Appreciate				.589		
ER_PostiveThink					.447	
ER_NegativeThink					.541	
ER_ExpressPositive					.500	
ER_StressCalm					.552	
ER_Positive Change					.566	
ER_EmotionControl					.581	
ER_LessNegative					.541	
SR_Goals						.684
SR_GoalPlan						.684
SR_Resolution						.658
SR_Willpower						.516
SR_GoalProgress						.653

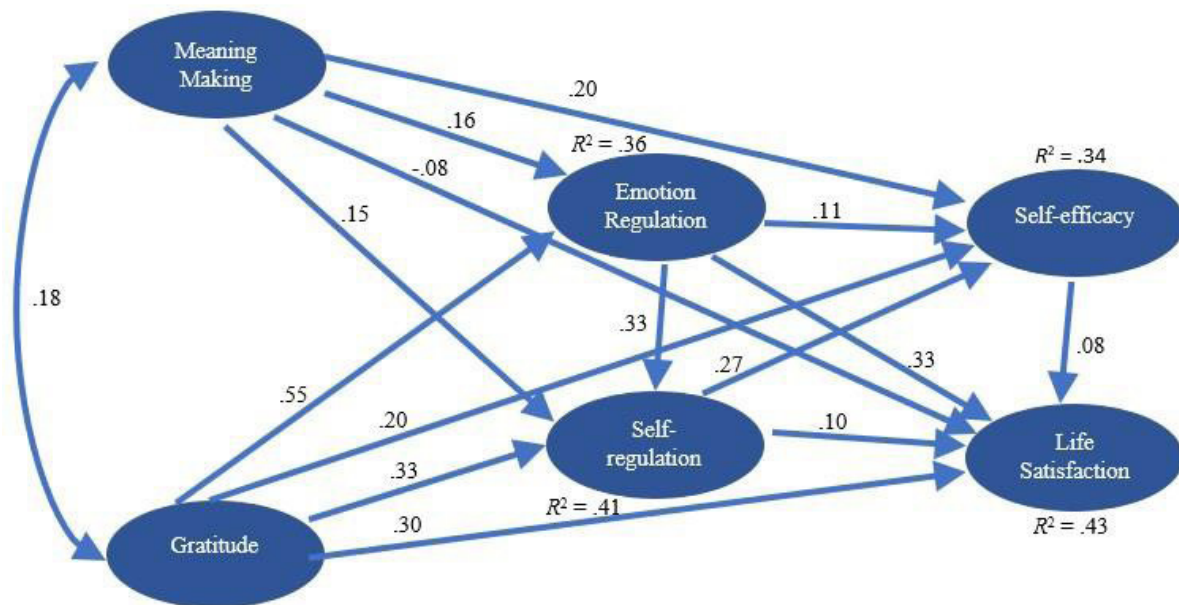


Figure 20 Final Instructor Model

**Table 19 Instructor Model Mediation Testing**

Relationships	Meaning making	Self- efficacy	Life satisfaction	Gratitude	Emotion regulation
Meaning making to emotion regulation to self-efficacy	.20	.013	.004	.024	Partial Mediation
Meaning making to self-regulation to life satisfaction	-.08	.012	.003	.026	Partial Mediation
Meaning making to self-efficacy to life satisfaction	-.08	.012	.004	.022	Partial Mediation
Meaning making to self-regulation to self-efficacy	.20	.029	.018	.043	Partial Mediation
Meaning making to self-regulation to self-efficacy to life satisfaction	-.08	.002	.001	.005	Partial Mediation
Self-regulation to self-efficacy to life satisfaction	.10	.021	.006	.040	Partial Mediation
Meaning making to emotion regulation to self-efficacy to life satisfaction	-.08	.001	.000	.003	Partial Mediation
Meaning making to emotion regulation to self-regulation	.15	.040	.025	.057	Partial Mediation
Meaning making to emotion regulation to self-regulation to self-efficacy	.20	.010	.006	.016	Partial Mediation
Meaning making to emotion regulation to self-regulation to self-efficacy to life satisfaction	-.08	.001	.000	.002	Partial Mediation

Relationships	Meaning making	Self-efficacy	Life satisfaction	Gratitude	Emotion regulation
Emotion regulation to self-regulation to self-efficacy to life satisfaction	.33	.002	.001	.005	Partial Mediation
Emotion regulation to self-efficacy to life satisfaction	.33	.011	.004	.024	Partial Mediation
Emotion regulation to self-regulation to self-efficacy	.11	.101	.070	.142	Partial Mediation
Gratitude to emotion regulation to self-efficacy	.20	.059	.023	.104	Partial Mediation
Gratitude to self-regulation to life satisfaction	.30	.032	.008	.065	Partial Mediation
Gratitude to emotion regulation to self-efficacy to life satisfaction	.30	.005	.002	.011	Partial Mediation
Gratitude to self-regulation to self-efficacy to life satisfaction	.30	.007	.002	.013	Partial Mediation
Gratitude to emotion regulation to self-regulation to self-efficacy	.20	.046	.032	.064	Partial Mediation
Gratitude to emotion regulation to self-regulation	.33	.182	.142	.226	Partial Mediation
Gratitude to emotion regulation to self-regulation to self-efficacy to life satisfaction	.30	.004	.001	.008	Partial Mediation

**Note.** Bootstrap Sample = 2,000 with replacement. \*  $p < .05$

**Student Model.** In this model also items were removed and kept based on their fit. Table 20 shows the correlation matrix for students. Most of the relationships show substantial Pearson correlations ( $> .5$ ), with some typical relationships ( $> .3$  and  $< .5$ ). These results, in combination with initially low goodness of fit results, led to Forgiveness being removed from the model. Final goodness of fit statistics for the CFA model:  $\chi^2=10,364,46$ ,  $p < .001$ ; CFI =.92 and RMSEA = .03, showing that the final CFA model had reasonable goodness of fit. Table 21 lists the final CFA factor loadings for the student model.

The SEM results are shown in Figure 21. Model fit was acceptable with  $\chi^2= 9832.47$ ,  $p < .001$ ; CFI =.91 and RMSEA = .03. Based on R2 results, 62% of the variance in empathy is explained in the student model. Emotion regulation resulted in 36% of its variance being explained, and 10% for self-efficacy. Mediation results consistently showed partial mediation. Table 22 provides the mediation pathways and relationships found in the students' model.

**Table 20 Student CFA Model Correlation Matrix**

	Sense of belonging	Self-efficacy	Empathy	Problem-solving	Emotion regulation	Forgiveness
Sense of belonging	1.00	-.41	.56	.54	.51	.07
Self-efficacy	-.41	1.00	-.38	-.48	-.29	.17
Empathy	.56	-.38	1.00	.61	.75	.10
Problem-solving	.54	-.48	.61	1.00	.54	.08
Emotion regulation	.51	-.29	.75	.54	1.00	.08
Forgiveness	.07	.17	.10	.08	.08	1.00

**Table 21 Final Student CFA Model Factor Loadings**

Items	Self- efficacy	Problem- solving	Sense of belonging	Emotion regulation	Empathy
SE_AvoidDifficult	.519				
SE_NewGiveUp	.560				
SE_NotCapable	.558				
SE_DontHandle	.541				
SE_Insecure	.488				
PS_ExpressThoughts		.405			
PS_GiveReasons		.491			
PS_InfoToSupport		.545			
PS_MoreThanOne		.510			
PS_PlanInfo		.566			
PS_SupportDecisions		.558			
PS_ListenIdeas		.381			
PS_CompareIdeas		.505			
PS_MindOpen		.539			
PS_IdentifyOptions		.484			
PS_GatherInfo		.535			
PS_ResultsThink		.464			
SB_TeachersRespect			.549		
SB_TreatedRespect			.520		
SB_NoticeGood			.417		
SB_PartOfCommunity			.561		
SB_ProudSchool			.569		



Items	Self- efficacy	Problem- solving	Sense of belonging	Emotion regulation	Empathy
SB_LikeMe			.514		
SB_ OpinionsSeriously			.521		
SB_ TeachersInterested			.522		
SB_CanTalk			.442		
SB_PeopleFriendly			.499		
SB_Activities			.451		
SB_BeMyself			.497		
SB_GoodWork			.544		
ER_PositiveThink				.352	
ER_NegativeThink				.422	
ER_ExpressPositive				.447	
ER_StressCalm				.531	
ER_PositiveChange				.491	
ER_EmotionControl				.529	
ER_LessNegative				.471	
Empathy_Perspective					.546
Empathy_TwoSides					.567
Empathy_Upset					.498
Empathy_Criticizing					.525
Empathy_Sides					.464

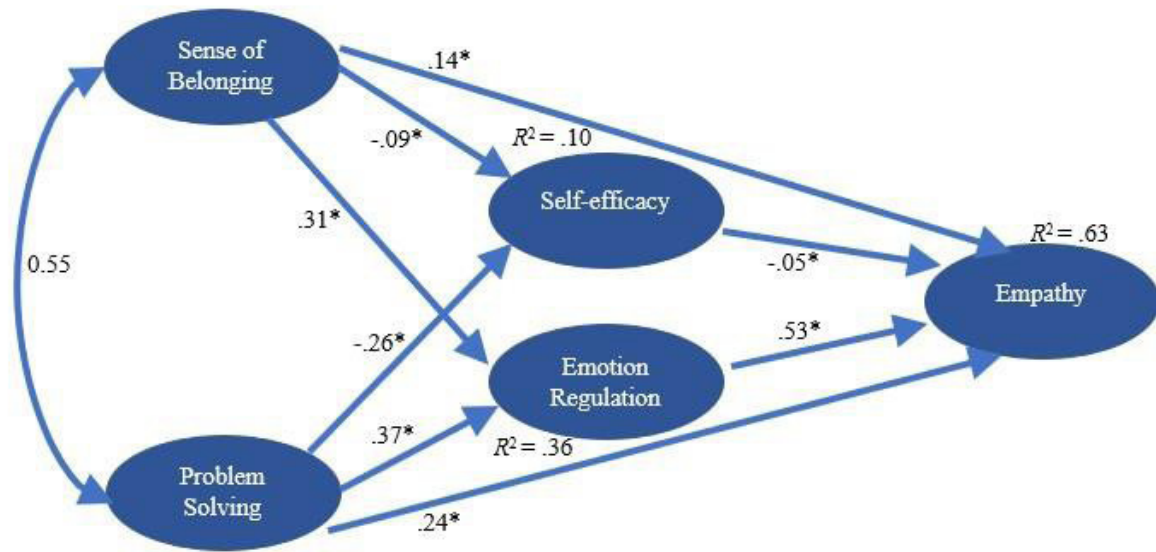


Figure 21 Final Student Model

Table 22 Student Model Mediation Testing

Relationships	Meaning making	Self-efficacy	Life satisfaction	Gratitude	Emotion regulation
Sense of belonging to Self-efficacy to Empathy	.141*	.004*	.002	.008	Partial Mediation
Problem solving to Self-efficacy to Empathy	.240*	.013*	.007	.020	Partial Mediation
Problem solving to Emotion-regulation to Empathy	.240*	.283*	.256	.310	Partial mediation
Sense of belonging to Emotion-regulation to Empathy	.141*	.168*	.146	.191	Partial mediation

Note. Bootstrap Sample = 2,000 with replacement; \* p < .05

## 5. Conclusions and Limitations

The entry into the 21st century has been impacted by a world that is smaller and the need to grow a new generation of global citizens (United Nations Department of Economic and Social Affairs, 2015). Research also suggests that to prepare for the 21st century students must gain skills in four areas at least. Those, according to Ardaiole et al. (2011), are “(a) knowledge of human cultures and the physical and natural world, (b) intellectual and practical skills, (c) personal and social responsibility (PSR), and (d) integrated and applied learning. All of these are important also for Muslim youth in secondary education or higher education” (p. 1940).

We are 20 years into the century, and it is not clear to what extent nations and communities are addressing these competencies. This study serves to push the agenda further while providing evidence-based results and exploring the various competencies and values deemed important in Muslim-majority societies and others alike.

The overall scores of all target groups, beyond religiosity as the highest, suggested ratings of important and very important (or agreeable and most agreeable). Self-regulation, a collective sense, hope, and empathy received the highest scores, with no differences based on gender or age, illustrating the importance of these constructs for the participants in the study. Further research comparing the various target groups may provide more information and nuances on these constructs.

Of special interest in this study are the results regarding the individualistic versus collectivist orientation construct. The results suggest the importance of the collectivistic orientation on mediating the effect of empathy and meaning making on gratitude, and its direct and positive effect on gratitude in the general model, which represents all groups (with

slightly higher scores for students and teachers in secondary schools). It is not clear, though, if these results only place the sample on the egocentric and ethnocentric states or also the collaborative collective and worldly or if the variable has the same mediating effect among specific target groups as opposed to the general sample. Recent research using brain imaging illustrates the importance of the collective orientation for the future.

Caspers et al. (2011) suggested studying brain imaging of people choosing between two values that represent individualistic as opposed to collectivistic value systems to identify differences between those who have a collectivistic (altruistic) orientation and those with individualistic (egocentric) orientation: Persons with a predominant collectivistic (altruistic) value system applied a ‘balancing and weighing’ strategy, recruiting brain regions of rostral inferior and intraparietal, and midcingulate and frontal cortex. Conversely, subjects with mainly individualistic (egocentric) value preferences applied a ‘fight- and-flight’ strategy by recruiting the left amygdala” (Caspers et al., 2011, Abstract). Nevertheless, further research is needed to explore this value further and ways it is portrayed, since loyalty to the clan is challenged daily and it is necessary to understand this further as it applies to Muslim-majority societies. Researching the nature of the collective and ways it is collaborative (if at all) is a promising avenue of inquiry.

The SEM analysis also revealed interesting results regarding the prediction pathways of the study’s constructs and the interactions among them. In the general model, the hypothesized model was partially confirmed because empathy and meaning making predicted gratitude both directly and through mediation of collectivistic orientation. None of the direct or indirect effect of hope, though, was significant and it was removed from the specific model. This does not mean that those

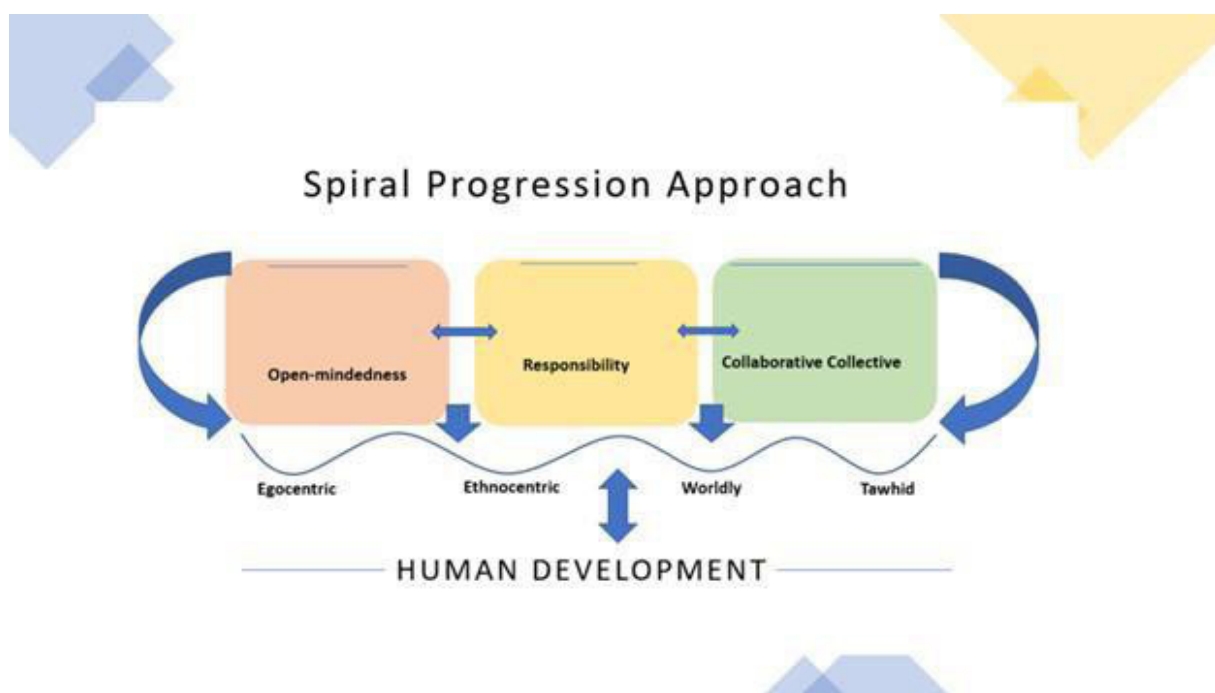
variables removed such as hope are not important but only that they were not necessarily significant predictors or mediators in this specific model. The results further emphasize the need to intentionally teach for forgiveness as part of the curriculum, as it is one of the highest values that do not necessarily come intuitively (Nasser et al, 2014). A pedagogy and curriculum infused with forgiveness skills is critical in schooling and in higher education (Worthington, 2001). It is also surprising that “perceived hope” did not play any statistically significant role predicting other indigenous variables in the general model, including gratitude. This may reflect the reality of youth and their future aspirations even though gratitude was a strong outcome of constructs such as positive emotions, empathy and all needed values and competencies that could be taught as well (Wood et. al, 2010). It is the purpose of this study to encourage the examination of additional models based on this study’s results.

The instructors’ hypothesized SEM model confirmed more statistically significant predicting and mediating paths than the general model. This hypothesized model was based on the literature on some of these paths but also on a hypothesis that teachers’ satisfaction and sense of professional self-efficacy are mediated by the ability to self-regulate and emotion regulate. These significant paths also illustrate the point that teachers who find meaning and gratitude in their profession (despite low pay and status in many contexts) have a higher sense of efficacy and satisfaction in life. The importance of the self- regulation variables as mediators also illustrates the set of skills instructors need to attain as they improve and develop professionally. These do not necessarily come intuitively but they can be learned and acquired (Schunk, 2005; English & Kitsantas, 2013), and it needs dedication and years of preparation and persistence.

The students' hypothesized SEM was partially confirmed because sense of belonging both directly and through the mediation of sense of self-efficacy (and emotion regulation predicted empathy). Problem-solving also predicted empathy in the sample of the students. These variables did not have any prediction effect on forgiveness, and thus forgiveness was dropped in the final model. In the present study, unlike in the 2018–2019 study, where the effect of empathy in predicting forgiveness was very high, the effect of empathy on gratitude was found to be high in the general model. In addition, the prediction of empathy as an outcome variable in the student model was highlighted, which requires further examination to shed light on sets of values and competencies that could predict it. A sense of belonging to school and the ability to problem solve seem to play important roles in school success and well-being lending their importance in instruction and the curriculum.

When viewing these results and added information on the constructs as situated in the SP framework (Figure 1), one can see that the mediating sets of values and competencies are in the responsibility group such as self-regulation, emotion regulation, and self-efficacy, which are also found in the literature as critical ones for academic and social success (Boekaerts, 2010, 2011). It is a possibility that intensifying the investment in these education and human development programs may empower the transition into the collaborative collective and worldly states of consciousness. As an exploratory study using only hypothesized prediction models, this report only addresses the general results with the aim that scholars, researchers, and others interested may expand on it and investigate deeper into the country level results, comparative data, and further examination of the proposed (SP) model and its components (Figure 1). For example, further research investigating the transition qualities and the state of

consciousness will enrich the knowledge base on Muslim societies. As some may claim that world indices and global reports do not reflect the actual social and cultural environments in Muslim-majority society, it is the intention of this study to open the discussion further on what counts. Scholars may utilize the framework shown in Figure 22 to explore values and competencies that fit within each category to expand and unpack the set of skills needed for a sense of open-mindedness, responsibility, and a collaborative collective. Further exploration of the manifestations of a worldly state of consciousness in Muslim-majority societies is also in place as a follow-up to this study.



**Figure 22 Proposed SP Approach**

The United Nations Sustainable Development Solutions Network World Happiness Report 2020 (UNSDSN, 2020) suggests that many of the communities we investigated ranked much lower than others (e.g., Malaysia ranked 82, Indonesia 84, Morocco 97, Algeria, 100, and India 144). These rankings are based on data collected before 2020, and thus the results may look different post-pandemic. The indicators for the

happiness index were first, the country's GDP, followed by social support and freedom to make life choices. The report advocates for strong and supportive social environments in assessing happiness mainly because they provide buffers against adversity. It may be that our own surveying provides another perspective on what is important for happiness in the societies of interest. Of course, the mentioned report does not address the specifics of each country or variables such as faith and spiritual existence. But it highlights and supports our results regarding the importance of social support and the sense of collective and social responsibility as indicators for well-being of participants in Muslim societies.

That the present study came to light and data collection was concluded despite the limitations of the pandemic is a success and an accomplishment. Of course, the study has limitations related to methodology, measures, and sampling. The nature of this study as a quantitative analysis has its own limitations because it only tells the story of the participants at one point of time. That the sample is not representative of the 15 different locations is also a limitation. Nevertheless, the results say something about the participants, their attitudes, and perceptions in the different age categories and communities. Furthermore, the translation and back translations ensured the accuracy of the constructs and the items related as suggested by the reliabilities, but it is possible that the nuances of the different languages and ways different cultures comprehend certain statements and attitudes may still vary, an expected limitation of such a large-scale and cross-cultural study. The ongoing study of meaning on the main constructs through focus group discussions at various locations will continue to add knowledge to this important limitation.



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## Appendix A

### *List of Coordinators*

Country	Name and Position	Organization
Algeria	Dr. Ahmed Abdelhakim Hachelaf Education & NGO Pracademic	Higher Normal School at Laghouat & New City Community Press/ Twiza Project
Bangladesh	Rowshan Zannat Research Fellow	IIIT Bangladesh Office
Bosnia & Herzegovina	Dr. Aid Smajić Associate Professor	Faculty of Islamic Studies, University of Sarajevo
India	Samra Firdous Projects Coordinator Mohammed Ataur Rahman Administrative Officer	Institute of Objective Studies
Indonesia	Aman Abadi, M.Si Director of Research	Center for Social Political Economic and Law Studies (CESPELS)
Jordan	Talal Eleamat Advocate	Edmaaj for Development and Social Responsibility Consulting
Kenya	Dr. Ali Adan Ali Senior Research Fellow & Registrar	Research, Innovation and Outreach Affairs Umma University
Kyrgyzstan	Zarina Duishegulova Executive Director Almaz Ibraev President	International Education and Research Center

Country	Name and Position	Organization
Malaysia	Dr. Rosnani Hashim Adjunct Professor Dr. Mohamed Aslam Mohamed Haneef Professor, Department of Economics	Kulliyyah of Education, IIUM IIIT East and Southeast Asia IIUM IIIT East and Southeast Asia
Mauritius	Dr. Jabeen Soobraty Lecturer	Human Welfare League
Morocco	Soukaina Taoufik Trainer and Academic Researcher	Jazz ¾: Association for Sustainable Development
Russia - Tatarstan	Dr. Leila Almazova Associate Professor, Department of Oriental, African and Islamic Studies Institute of International	Kazan (Volga Region) Federal University Kazan Tatarstan Russian Federation
Sudan	Dr. Salih Mustafa Ahmed Mualley	The Institute of Islamization of Knowledge
Tanzania	Mohamed Msoroka, PhD Lecturer	Open University of Tanzania
USA	Shaza Khan, PhD Executive Director	The Islamic Schools League of America (ISLA)



## Appendix B

### *List of Survey Scale Items*

#### *Life Satisfaction*

1. In most ways my life is close to my ideal.
2. The conditions of my life are excellent.
3. I am satisfied with life.
4. So far, I have gotten the important things I want in life.
5. If I could live my life over again, I would change almost nothing.

#### *Gratitude*

1. I have so much in life for which to be thankful.
2. If I had to list everything that I felt grateful for, it would be a very long list.
3. When I look at the world, I don't see much for which to be grateful.
4. I am grateful to a wide variety of people.
5. As I get older, I find myself more able to appreciate the people, events, and situations that have been part of my life history.
6. Long amounts of time can go by before I feel grateful to something or someone.

#### *Emotion Regulation*

1. When I want to feel more positive emotion (such as joy or amusement), I change what I'm thinking about.
2. When I want to feel less negative emotion (such as sadness or anger), I change what I'm thinking about.

3. When I am feeling positive emotions, I express them.
4. When I'm faced with a stressful situation, I make myself think about it in a way that helps me stay calm.
5. When I want to feel more positive emotion, I change the way I'm thinking about the situation.
6. I control my emotions by changing the way I think about the situation I'm in.
7. When I am feeling negative emotions, I express them.
8. When I want to feel less negative emotion, I change the way I'm thinking about the situation.

### *Meaning Making*

1. I understand my life's meaning.
2. I am looking for something that makes my life feel meaningful.
3. I am always looking to find my life's purpose.
4. My life has a clear sense of purpose.
5. I have a good sense of what makes my life meaningful.
6. I have discovered a satisfying life purpose.
7. I am always searching for something that makes my life feel significant.
8. I am seeking a purpose or mission for my life.
9. My life has no clear purpose.
10. I am searching for meaning in my life.

### *Collectivistic vs Individualistic Orientation*

1. I'd rather depend on myself than others.
2. I rely on myself most of the time; I rarely rely on others.
3. I often do "my own thing."
4. My personal identity, independent of others, is very important to me.
5. It is important that I do my job better than others.
6. Competition is the law of nature.
7. When another person does better than I do, I get tense.
8. If a peer gets a prize, I would feel proud.
9. The well-being of my peer is important to me.
10. To me, pleasure is spending time with others.
11. I feel good when I cooperate with others.
12. Parents and children must stay together as much as possible.
13. Family members should stick together, no matter what sacrifices are required.
14. It is important to me that I respect the decisions made by my groups.

### *Empathy*

1. I sometimes try to understand my friends better by imagining how things look from their perspective.
2. I believe there are two sides to everything and try to look at them both.
3. When I'm upset at someone, I usually try to "put myself in his/her

place” for a while.

4. Before criticizing somebody, I try to imagine how I would feel if I were in their place.
5. If I am sure I am right about something, I don't waste much time listening to other people's arguments.
6. I sometimes find it difficult to see things from the “other person's” point of view.
7. I try to look at everybody's side of a disagreement before I make a decision.

### *Forgiveness*

1. Imagine that your brother/sister borrowed your car and while he/she was driving it he/she drove through a red light and hit another car, which caused a great damage to your car, but no one was hurt.
2. Imagine a young man from your town who was almost engaged to one of your sisters broke up with her.
3. Imagine you told your sibling a secret and you wanted him/her not to tell anyone, then you discovered that he/she had disclosed this secret to a few people.
4. Imagine you had an argument with your cousin, and he/she asked you to leave his or her house.
5. Imagine you were at a social gathering and you heard someone from your same religion cursing yours.
6. Imagine you were at a social gathering and you heard someone who is different from your religion cursing yours.
7. Imagine that one of your next-door neighbors built a wall around his/

her house, and then you came to realize that his/her wall was inside your land or property.

8. Imagine that one of your friends starts a nasty rumor about you that is not true. As a result, people begin treating you worse than they have in the past.
9. Imagine that a friend borrows your most valued possession and then loses it. The friend refuses to replace it.

### *Teacher Self-Efficacy*

1. How much can you do to get local colleges and universities involved in working with your institution?
2. How much can you do to make your institution a safe place?
3. How much can you do to get students to trust teachers?
4. How much can you do to make students enjoy coming to your class?
5. How much can you do to reduce student dropout?
6. How much can you do to reduce student absenteeism?
7. How much can you do to get students to believe they can do well in academic work?
8. How much can you help other teachers with their teaching skills?
9. How much can you do to get through to the most difficult students?
10. How much can you do to promote learning when there is lack of support from the home?
11. How much can you do to keep students on task on difficult assignments?
12. How much can you do to increase students' memory of what they have

been taught in previous lessons?

13. How much can you do to overcome the influence of adverse community conditions on students' learning?
14. How much can you do to get students to work together?
15. How much can you do to get students to do their academic work?
16. How much can you do to motivate students who show low interest in academic work?

### *Self-Efficacy*

1. If something looks too complicated, I will not even bother to try it.
2. I avoid trying to learn new things when they look too difficult.
3. When trying to learn something new, I soon give up if I am not initially successful.
4. When I make plans, I am certain I can make them work.
5. If I can't do a job the first time, I keep trying until I can.
6. When I have something unpleasant to do, I stick to it until I finish it.
7. When I decide to do something, I go right to work on it.
8. Failure just makes me try harder.
9. When I set important goals for myself, I rarely achieve them.
10. I do not seem capable of dealing with most problems that come up in my life.
11. When unexpected problems occur, I don't handle them very well.
12. I feel insecure about my ability to do things.

### *Problem-Solving*

1. I think of possible results before I act.
2. I develop my ideas by gathering information.
3. When facing a problem, I identify options.
4. I can easily express my thoughts on a problem.
5. I am able to give reasons for my opinions.
6. It is important for me to get information to support my opinions.
7. I usually have more than one source of information before making a decision.
8. I plan how to get information on a topic.
9. I support my decisions by the information I got.
10. I listen to the ideas of others even if I disagree with them.
11. I compare ideas when thinking about a topic.
12. I keep my mind open to different ideas when planning to make a decision.

### *Self-Regulation*

1. I set goals for myself and keep track of my progress.
2. Once I have a goal, I can usually plan how to reach it.
3. If I make a resolution to change something, I pay a lot of attention to how I'm doing.
4. I have a hard time setting goals for myself.
5. I usually keep track of my progress toward my goals.

6. I have trouble making plans to help me reach my goals.
7. I have a lot of willpower.
8. I get easily distracted from my plans.
9. I have trouble making up my mind about things.
10. I put off making decisions.
11. When it comes to deciding about a change, I feel overwhelmed by the choice.
12. Little problems or distractions throw me off course.
13. I have so many plans that it's hard for me to focus on any one of them.
14. I don't seem to learn from my mistakes.
15. I usually only have to make a mistake one time in order to learn from it.
16. I learn from my mistakes.

### *Sense of Belonging*

1. I feel like a real part of my school community.
2. The teachers have respect for me.
3. I am treated with as much respect as others at my school.
4. It is hard for people like me to get accepted here.
5. Sometimes I feel as if I don't belong here.
6. People here notice when I'm good at something.
7. I feel very different from most other students here.
8. I feel proud of belonging to my school.



9. Other students here like me the way I am.
10. Other students in my school take my opinions seriously.
11. Most teachers at my school are interested in me.
12. There's at least one teacher or other adult in this school I can talk to if I have a problem.
13. People at this school are friendly to me.
14. Teachers here are not interested in people like me.
15. I am included in lots of activities at my school.
16. I can really be myself at this school.
17. People here know I can do good work.
18. I wish I were in a different school.

### *Religiosity/Spirituality*

1. How important is your religion for you?
2. How important is prayer for your religious beliefs?
3. How important is it for you to feel that God intervenes in your life?
4. How important is it for you to belong to a religious group?
5. How important is your religion in defining who you are?

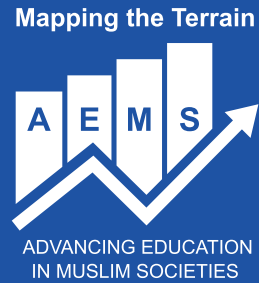
## Appendix C

### Map of Participating Countries









IIIT was established in 1981 as a U.S. non-profit 501 © (3) nondenominational organization. Its headquarters are in Herndon, Virginia, in the suburbs of Washington, DC.

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