The International Journal of Management Education 21 (2023) 100768

Contents lists available at ScienceDirect

The International Journal of Management Education

journal homepage: www.elsevier.com/locate/ijme

Ability, benevolence, and integrity: The strong link between student trust in their professors and satisfaction☆

Mark S. Hiatt [a,*], Graham H. Lowman [b], Michael Maloni [c], James Swaim [d], Rajaram Veliyath [e]

[a] Kennesaw State University, Michael A. Leven School of Management, Entrepreneurship & Hospitality, 560 Parliament Garden Way NW, BB 339A, Kennesaw, GA, 30144, USA
[b] Kennesaw State University, Michael A. Leven School of Management, Entrepreneurship & Hospitality, 560 Parliament Garden Way NW, BB331, Kennesaw, GA, 30144, USA
[c] Kennesaw State University, Michael A. Leven School of Management, Entrepreneurship & Hospitality, 560 Parliament Garden Way NW, BB337, Kennesaw, GA, 30144, USA
[d] Kennesaw State University, Michael A. Leven School of Management, Entrepreneurship & Hospitality, 560 Parliament Garden Way NW, BB363, Kennesaw, GA, 30144, USA
[e] Kennesaw State University, Michael A. Leven School of Management, Entrepreneurship & Hospitality, 560 Parliament Garden Way NW, BB302, Kennesaw, GA, 30144, USA

ARTICLE INFO

Keywords:
Higher education
Trust
Satisfaction
Ability
Benevolence
Integrity

ABSTRACT

Improving student satisfaction remains a critical pursuit for institutions of higher education to address enduring challenges with student retention and persistence. Student trust in their professors offers one potentially impactful approach that faculty can individually pursue to improve such student satisfaction. However, the link between trust and satisfaction, including how trust is formed, has largely been overlooked in higher education research. Given this gap, we present initial empirical validation via partial least squares structural equation modeling (PLS-SEM) of U. S. business student survey data of the profound impact of the ABI model of trust, which comprises ability (knowledge and skills), benevolence (concern for others), and integrity (sound ethical and moral principles). The results confirm ABI as a second-order construct that directly measures student trust in their professors rather than ABI serving as antecedents to such trust. Moreover, ABI trust acts as an exceptionally strong predictor of satisfaction for both undergraduate and graduate business students, positioning student trust in professors as critical in higher education. Accordingly, we organize feedback from a survey of faculty to present specific, actionable tactics that professors can apply in their classes to enhance ABI trust, thereby elevating not only student satisfaction but also their own teaching evaluations.

1. Introduction

Student satisfaction is a critical concern in higher education. Scholars have linked student satisfaction directly to the substantial

☆ Note: Contributing author sequence is provided below with an indicated corresponding author.

* Corresponding author.
E-mail addresses: mhiatt1@kennesaw.edu (M.S. Hiatt), glowman@kennesaw.edu (G.H. Lowman), mmaloni@kennesaw.edu (M. Maloni), jswaim2@kennesaw.edu (J. Swaim), rveliyat@kennesaw.edu (R. Veliyath).

https://doi.org/10.1016/j.ijme.2023.100768
Received 31 August 2022; Received in revised form 4 November 2022; Accepted 24 January 2023
Available online 17 February 2023

and pervasive problem of retention (continued enrollment from the first to second year) and persistence (continued enrollment from the second year until graduation (Burke, 2019). As evidence, less than 60% of students graduate within six years on average (Kirp, 2019). Extant literature frequently highlights faculty as a critical influencer of student satisfaction and retention (Douglas et al., 2015; Luque Martínez & Doña Toledo, 2019). This research generally focuses on student perceptions of faculty interaction, feedback, and understanding. However, there has been a notable absence of research examining the role of trust and trust-building in higher educational environments (Niedlich et al., 2021). This creates an urgent need for deeper exploration of how the trust bonds developed between students and their professors enhance student satisfaction and, in the end, address lingering problems with student retention.

Consequently, we offer herein an empirical validation of the role of student-professor trust in higher education. We focus on the well-established ABI model of interpersonal trust that centers on three components: ability (knowledge and skills), benevolence (concern for others), and integrity (sound ethical and moral principles) (Mayer et al., 1995). Based on a survey of U.S. business students, we ultimately seek to not only validate the applicability of the ABI model for examining how students develop trust in professors but also confirm the subsequent impact of such trust on student satisfaction. Moreover, we also organize findings from a faculty survey to offer actionable tactics that faculty can employ to enhance ability, benevolence, and integrity in order to foster student trust and their own teaching evaluations. These ideas serve as the basis for our two primary research questions:

RQ1: Does the ABI (ability, benevolence, and integrity) model of student trust in their professors influence student satisfaction?
RQ2: How can professors employ the ABI framework to strengthen student trust?

2. Trust in educational settings

Rotter (1980 1) defines trust as "a generalized expectancy held by an individual that the word, promise, oral or written statement of another individual or group can be relied on." Prior research has suggested that dyadic, interpersonal trust is paramount when individuals rely on each other to reach specific goals, particularly in the context of learning (Hoy & Tschannen-Moran, 1999; Rotter, 1967). Rotter (1967) describes this connection between trust and learning as an issue of expectancy. Namely, individuals' acceptance of information and knowledge from others is largely contingent on their expectation that the other person is being truthful. While this underlying theoretical link between constructs is consistent across contexts, the roles, autonomy, and reward systems associated with the student-teacher relationship differ extensively from workplace employee-manager relationships where trust has largely been studied. This, thus, stresses the need to specifically examine trust in education.

This need is further reinforced by the few scholarly investigations examining trust in education having almost exclusively taken place at primary and secondary levels (Forsyth et al., 2008; Mitchell et al., 2018). Further, the limited extant literature in higher education has primarily focused on the effects of trust, as opposed to its causes. For instance, student trust in faculty has been found to influence student engagement, goal setting, and achievement (Demirtaş, 2016; Faranda, 2015; Leighton et al., 2018). Further, mutual trust in the classroom aids in the development of a safe learning environment that allows for both instructors and students to be more fully present (Kisfalvi and Oliver, 2015). The literature also points to trust in higher education leading to improved enrollment and loyalty, as well as strengthening student perceptions of the value of their education (Sampaio et al., 2012; Snijders et al., 2019).

Yet despite the established importance of trust in higher education, understanding how trust develops is still relatively understudied, particularly in student-professor relationships (Kosonen & Ikonen, 2022). Studies have identified the significance of student trust in their institution as well as faculty trust in administrators, co-workers, and students. Yet little research has investigated how college students develop trust in faculty (Ghosh et al., 2001). As exceptions, Holdford and White (1997) found that shared values with faculty and clear expectations lead to improved graduate pharmacy student trust. In another study, nursing students' trust in faculty was found to be primarily influenced by faculty competence, integrity, and giving of themselves (Varagona & Hold, 2019). While offering initial valuable insights, these preliminary results have not been organized into a replicable trust model for higher education (RQ1) and also do not offer a rigorous guide for faculty to boost student trust (RQ2).

2.1. Ability, benevolence, integrity (ABI) model of trust

Given this gap, we examine how trust emerges between students and faculty, applying the model of Mayer et al. (1995) that centers on three factors that enable trustworthiness: *ability, benevolence*, and *integrity* (ABI). Mayer et al. used this integrated ABI model to differentiate the construct of trust from the perceived factors that contribute to it (like ability, benevolence, and integrity). In doing so, they more clearly define how interpersonal relationships are affected by trust. That is, why one person might trust another.

Examining the individual ABI factors, ability is the collection of skills and competencies that allow a person to have an influence in their particular field. Prior to Mayer et al., other researchers explored trust with similar ability-related constructs such as competence, judgment, and business sense (Butler Jr, 1991). Next, benevolence represents the extent to which one party in a relationship is believed to want to benefit the other party (Yousaf et al., 2020). Therefore, benevolence is the awareness of a positive orientation on the part of the person who wants to engender trust from another person. The third trust factor, integrity, is a perception that the person to be trusted in a relationship follows an acceptable set of moral and ethical principles. Previous trust literature has applied similar integrity-like terms such as value congruence and character (Hart et al., 1986; Sitkin & Roth, 1993).

The propensity to trust individuals in managerial positions in the workplace has been well-researched under the ABI lens (Christie et al., 2015; Poon, 2013). Nonetheless, Mayer et al. urge additional investigation into context-specific trust (Schoorman et al., 2007). In this vein, the ABI model has yet to be empirically validated in the context of student trust in professors given the unique content of student and professor roles, autonomy, and reward systems. Consequently, we cannot assume that the ABI model holds in higher

education.

We adopt the ABI framework to link student trust in professors to student satisfaction, which Ramsey and Lorenz (2016) depict as the student pleasure experience relative to their academic goals. Unlike most ABI literature, however, we model trust as a formative second-order construct consisting of ability, benevolence, and integrity (Li et al., 2008; Romero & Mitchell, 2018). In other words, our study finds that ABI is not an antecedent to trust as typically adopted in the literature but actually equates to trust in the context of student-professor relationships. As summarized in Fig. 1, we link ABI-based trust to student satisfaction (Ismail et al., 2019). Interestingly, the survey items for satisfaction applied in our study also simultaneously serve as measures from our teaching evaluation instrument, indicating that ABI-based trust will also improve instructor teaching reviews. We caution that our goal is to not superficially inflate teaching evaluations at the expense of rigor and learning. Ideally, improved satisfaction via will trust will enhance student learning.

Extant literature does support links between each of the ABI elements and student satisfaction. For example, scholars identify how ability-related factors such as competence, expertise, organization, preparation, and conscientiousness lead to student satisfaction (Clayson & Sheffet, 2006; Mardikyan & Badur, 2011; Rodríguez et al., 2014; Young & Shaw, 1999, Özgüngör and Duru, 2015). Scholars also highlight the influence of benevolence-related factors, including instructor engagement, encouragement, and servant leadership as well as accessibility and availability for extra help (Mardikyan & Badur, 2011; Sahawneh & Benuto, 2018; Vianden & Yakaboski, 2017, Özgüngör and Duru, 2015). Still, the link between professor integrity and student satisfaction is somewhat less established. As one example, scholars tie instructor fairness to student satisfaction (Mardikyan & Badur, 2011). Additionally, perceptions of the school's ethics have been linked to student satisfaction (Santos et al., 2020), while professor ethical views have been established as a critical subjective norm for students (Swaim et al., 2014; Thomas, 2005).

3. Methods

To test the model, we collected survey data from undergraduate and graduate students taking business courses at a large public U.S. university. The survey (Appendix A) asks students about their perceptions of one of their current professors of the student's choice. The items for ability, benevolence, and integrity were altered slightly from Mayer and Davis (1999) to specifically refer to the professor and teaching. The satisfaction items were taken directly from the school's course evaluation instrument, thereby simultaneously yielding insight into trust impacts on student satisfaction and faculty teaching evaluations. We pretested the survey with 45 graduate students, who expressed no concerns about the intent and wording of the survey scales.

Toward the semester end, we distributed the survey electronically via an online survey tool to 831 undergraduate students taking upper-level (i.e., junior or senior) classes as well as 139 MBA students in the business school. These students retain significant experience not only with the professor of choice for the survey but also with their other current and previous professors, thus equipping them with significant perspective to meaningfully complete the survey. Incomplete and straight-lined responses were removed, leaving 554 useable undergraduate and 124 graduate responses (Sarstedt & Mooi, 2019). To enhance student comfort about completing the survey, students were asked to select a professor from a class not being taught by the members of the research team. Moreover, respondents were asked to not identify the professor and were promised confidentiality of their responses. The initial survey responses were predominantly positive, suggesting the students were evaluating a preferred instructor. To enhance the variability in the responses, we then surveyed additional students, requesting that they select their least favorite instructor. Data from a subset of the survey scales, specifically the satisfaction construct, were collected from twenty students who declined to respond to the initial survey. These results did not statistically differ from those of the respondents to the full survey, therefore minimizing concerns about non-response bias.

As depicted in Table 1, student perceptions of professor ability and integrity are relatively strong. We attribute this to the quality of instruction at the school of study. Despite being part of a large public university, the school retains relatively small class sizes and a remarkably personalized and high-quality level of instruction, particularly for upper-class undergraduates and MBA students. In comparison, perceptions of professor benevolence and student satisfaction, while positive (i.e., above the neutral value of 4), are somewhat weaker than those of ability and integrity. In all cases, graduate student perceptions of their faculty are higher than those of the undergraduates, aligning with the college's high expectations for faculty in the MBA program as the flagship program for the school.

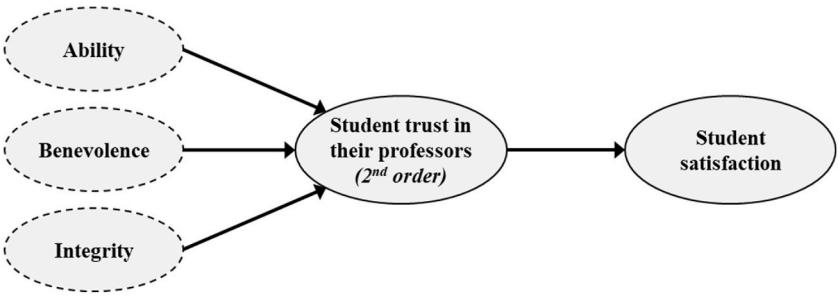

Fig. 1. ABI model of student trust in professors.

Table 1
Descriptive statistics.

First-Order Construct	Item		Undergraduate		Graduate	
			Mean	St Dev	Mean	St Dev
Ability	A1	Capable	5.45	1.77	6.27	1.30
	A2	confident in skills	5.49	1.75	6.35	1.06
	A3	well qualified	5.80	1.48	6.48	0.97
	A4	knowledge	5.99	1.39	6.56	0.83
	A5	special knowledge	5.56	1.65	6.38	1.06
Benevolence	B6	Concerned	4.87	1.84	5.57	1.60
	B7	important needs	4.61	1.88	5.40	1.58
	B8	affect grade	5.63	1.58	6.25	1.17
	B9	looks out	4.84	1.78	5.52	1.48
	B10	go out of way	4.84	1.85	5.77	1.39
Integrity	I11	fair in dealings	5.56	1.62	6.10	1.19
	I12	Sound principles	5.46	1.55	6.13	1.20
	I13	stick to word	5.49	1.65	6.11	1.27
	I14	professor values	5.34	1.71	6.00	1.31
Satisfaction	S15	Satisfied	5.03	2.05	5.83	1.50
	S16	motivated to learn	4.73	2.12	5.70	1.59
	S17	Effective	4.94	2.06	5.89	1.47
	S18	recommend	4.87	2.27	5.69	1.73

Scale: 1: Strongly Disagree, 2: Disagree, 3: Somewhat Disagree, 4: Neither Agree nor Disagree, 5: Somewhat Agree, 6: Agree, 7: Strongly Agree.

To evaluate the relationships among the research constructs, we applied partial least squares structural equation modeling (PLS-SEM), which offers a more appropriate approach than covariance-based SEM for several reasons. First, the goal of the research is prediction rather than confirmation of both trust and student satisfaction (Hair et al., 2011; Jöreskog & Wold, 1982). Furthermore, PLS- SEM better supports formative constructs as trust is modeled in this study (Hair et al., 2019). Finally, PLS-SEM can assess non-normal data as several of the study scales exhibit significant skewness and kurtosis (Hair et al., 2019).

3.1. Measurement model

We first assessed the first-order reflective constructs of ability, benevolence, integrity, and satisfaction. As shown in Table 2, strong composite reliability and Cronbach's alpha values depict sufficient reliability (Hair et al., 2014). Examining validity, the factor loadings for each of the constructs well exceed the 0.70 threshold, and the average variance extracted (AVE) values exceed the 0.50 minimum (Hair et al., 2014). Discriminant validity is indicated by squared inter-construct correlations that are less than the AVE values for the corresponding constructs (Henseler et al., 2015). Further supporting discriminant validity, most heterotrait-monotrait (HTMT) values fall below the conservative target of 0.85 (Kock, 2015). While the HTMT values for ability and integrity (0.92), benevolence and integrity (0.93), and benevolence and satisfaction (0.86) exceed the 0.85 threshold, the confidence intervals do include the value of one (Henseler et al., 2015).

Table 2
Measurement model results.

First-Order Construct	Item		Factor Loading	Composite Reliability	Cronbach Alpha	AVE
Ability	A1	capable	0.93	0.97	0.96	0.86
	A2	confident in skills	0.95			
	A3	well qualified	0.94			
	A4	knowledge	0.90			
	A5	special knowledge	0.91			
Benevolence	B6	concerned	0.93	0.96	0.95	0.84
	B7	important needs	0.95			
	B8	affect grade	0.84			
	B9	looks out	0.95			
	B10	go out of way	0.92			
Integrity	I11	fair in dealings	0.93	0.96	0.94	0.84
	I12	Sound principles	0.92			
	I13	stick to word	0.90			
	I14	professor values	0.93			
Satisfaction	S15	satisfied	0.97	0.98	0.97	0.93
	S16	motivated to learn	0.96			
	S17	effective	0.97			
	S18	recommend	0.96			

To further investigate these concerns about discriminant validity, we subsequently developed a second survey to eliminate potential issues such as conceptual overlap between the survey scales and to account for respondents who may not have devoted sufficient time and critical thought to distinguishing the scale items. In this second survey, we reverse-coded one item for each construct to enhance respondent attention to individual survey items. Second, we administered the survey over two time periods, each a week apart, separating the independent variables (ability, benevolence, and integrity) from the dependent variable (student satisfaction). We collected this second survey data from other undergraduate and graduate students not participating in the initial survey. With 230 useable paired (round 1 and round 2) responses (136 undergraduate, 94 graduate), the discriminant validity results are largely unchanged. The HTMT values improved only modestly from those of the initial survey, particularly for graduate students. We, therefore, proceed with the original survey data while denoting a future research opportunity to evaluate the discriminant validity of ABI and student satisfaction in greater detail.

We next followed procedures set by Sarstedt et al. (2019) to validate trust as a formative second-order construct comprised of the first-order ability, benevolence, and integrity factors. We first conducted a redundancy analysis, relating the second-order trust construct to a single global survey item that directly captured professor trust (item T19 in Appendix A) (Chin, 1998). A bootstrapping analysis with 5000 subsamples of the relationship between the second-order trust variable and the single trust item produces a path coefficient of 0.89 with a 95% confidence interval between 0.87 and 0.90. This exceeds the recommended 0.70 minimum, thereby

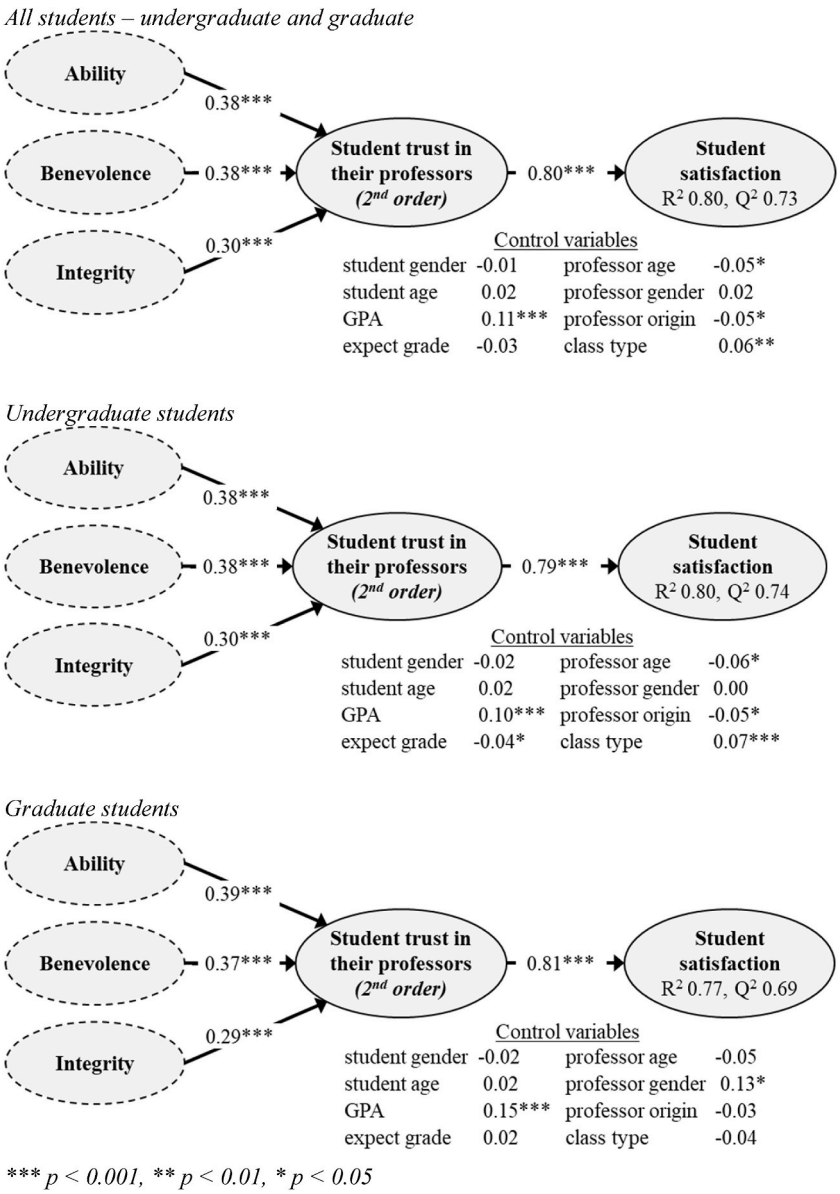

Fig. 2. Structural model results.

supporting the convergent validity of the trust construct (Sarstedt et al., 2019). Next, the variance inflation factor (VIF) values of the lower-order constructs fall between 0.20 and 5.00, thereby minimizing collinearity concerns. The same bootstrapping analysis reveals the relative statistically significant regression weight of the reflective first-order constructs of ability (0.38, $p < 0.001$), benevolence (0.38, $p < 0.001$), and integrity (0.31, $p < 0.001$) on the formative second-order trust construct (Fig. 2). The weights were relatively similar, indicating equitable contributions of each ABI factor to trust. These results, therefore, offer strong support for the validity of the second-order trust construct with ability, benevolence, and integrity depicting trust rather than serving as trust antecedents.

3.2. Structural model

We ran a bootstrapping analysis ($n = 5000$) to evaluate the relationship between the second-order trust construct and student satisfaction (Fig. 2). Given the lack of research examining student trust in professors, we added controls for factors that may influence student responses, including the student's gender, age, GPA, and expected grade in the class. We also controlled for the student's perception of the professor's age, gender, and origin (i.e., from the U.S. or not) as well as class type (i.e., face-to-face, online, or hybrid).

The structural results reveal that the path from trust to student satisfaction for the combined data set retains a significant path weight of 0.79 ($p < 0.001$) with an effect size ($f^2 = 2.01$), which is much greater than the 0.35 minimum considered to be large (Hair et al., 2014). Additionally, the r^2 of 0.80 indicates that trust provides an exceptionally strong level of predictive accuracy on student satisfaction, and the Q^2 value of 0.73 from the blindfolding procedure also confirms large predictive relevance (Hair et al., 2014). Fig. 2 further reveals that the individual model for undergraduates and graduates individually are remarkably similar. A multigroup analysis (MGA) between the student types confirms this, yielding no statistically significant differences between the two student groups. Thus, the ABI trust construct has an extremely strong link to student satisfaction for all students (undergraduate and graduate).

4. Discussion

The results above follow the extant trust literature, providing initial evidence that student trust in professors via ABI enhances student satisfaction (RQ1). However, our results differ to some extent by establishing trust as a reliable and valid second-order construct that is formed by the ABI factors. In other words, we maintain that ability, benevolence, and integrity in higher education directly measure levels of student trust in their professors rather than serve as antecedents to such trust. Consequently, professors can pursue methods to increase their perceived ability, benevolence, and integrity to enhance student satisfaction. Similarly, focusing on the reasons for a lack of student satisfaction and negative student experiences can be an advantage given the competitive nature of higher education (Hart and Coates, 2011). With the satisfaction survey items also representing teaching evaluation questions, enhancing ABI trust also can improve professor teaching evaluations. Moreover, given support in the literature linking student satisfaction to retention and persistence (Burke, 2019; Kirp, 2019), professors can apply ABI-based trust as a practical tool to impact student retention and persistence. These results further support the notion that young adults place considerable value on the importance of trust in academic relationships (Bear & Jones, 2017).

The challenge remains, however, that the trust literature is fragmented related to the specific tactics of how to build ABI. This is especially true in the context of higher education where trust development has received scant attention. While our student survey results emphasize the importance of trust via ABI, perhaps an even more pressing issue lies in what professors can do to enhance ABI with students (RQ2). This dilemma remains especially relevant given that faculty in many academic fields such as business are not rigorously trained in teaching during their doctoral programs (Rasche & Gilbert, 2015).

4.1. Enhancing ability, benevolence, and integrity

Given this challenge, we applied a post hoc analysis, seeking feedback from current faculty on how they successfully establish ability, benevolence, and integrity with their students. Specific behaviors can materially assist faculty members in enhancing students' perceptions of respectful instructor behavior in the classroom (Buttner 2004; Heffernan et al., 2009). To do so, we distributed a link to an anonymous online survey to faculty in the same business school as the student survey. This faculty survey (Appendix B) consists of three open-ended questions, one each for ability, benevolence, and integrity. Of the 207 full and part-time faculty, 31 provided responses, which were extremely rich and diverse with ideas. This suggests complexity in requisite teaching capabilities and tactics to build student trust.

Two members of the research team subsequently met to discuss how to code the responses into specific dimensions of ABI and then collaborated on initially coding five random responses from each ABI element. We then worked individually to code the remaining responses and met again to compare codings. After long collaborative discussions, we achieved an extremely high level of inter-rater reliability and attained theoretical and data saturation as no new insights or dimensions were identified after the 24th respondent (Bowen, 2008; Guest et al., 2006; Strauss & Corbin, 1997). That is, the codings of the remaining seven respondents successfully fit the prior identified dimensions (Charmaz, 2003). While future research should confirm our results with a broader sample, we anticipate our findings to be largely generalizable across higher education institutions.

The coding process for the faculty survey resulted in 12 dimensions for ability, 24 for benevolence, and 19 for integrity. To focus these results, we present the most recurrent dimensions, specifically those proposed by at least three respondents (i.e., 10%). We invite readers to contact us directly for the full results, which offer a rich array of ideas on enhancing ABI with students. Fig. 3 organizes all dimensions, revealing that several can be utilized to enhance multiple elements of ABI. Table 3 (ability), Table 4 (benevolence), and Table 5 (integrity) present the detailed results for each construct that we discuss individually below.

Starting with *ability* (Table 3), the most frequently stated dimension is demonstration, whereby professors validate their ability by linking course content, theory, and application through current events, real-world examples, personal stories, and material associated with professional certification in the field. Knowledge sharing represents the second most stated dimension where professors use multiple pedagogical tools and perspectives to teach and simplify course content. Third, professors can call on their expertise through their credentials, professional work experience, and mastery of the course subject matter. Fourth, professors can demonstrate ability by engaging the class in discussions about the course content, including thorough resolution of any unanswered questions. Finally, other dimensions of ability include organization and clarity of course content that are enabled via thorough preparation of teaching lessons and course materials as well as modeling professional behavior.

The respondents provided even greater breadth and richness of ideas to enhance *benevolence* (Table 4). The most frequently mentioned dimension focuses on flexibility and openness with assignments (including making allowances for student emergencies), accommodating different student learning styles, tolerating different opinions, and providing feedback about the class. Respondents also focused on professor compassion, empathy, and kindness with student mistakes, accommodations for individual student circumstances, and processes for dealing with student team issues. Professors can also enhance their perceived benevolence by knowing students' names and their personal backgrounds as well as their goals and challenges. Communication and grading responsiveness are also emphasized as means to reinforce benevolence. Like ability, engaging the class in interactive discussions can support perceptions of benevolence. Other benevolence dimensions included leniency, encouragement, professor availability outside of class, regular check-ins with students, and finally, transparency of grading and course policies. However, both leniency and flexibility discussed as important criteria above may contradict other stated benevolence dimensions such as grading consistency and adherence to course expectations.

Respondents' insights regarding integrity (Table 5) are also rich and diverse. Like the earlier findings for ability, organization of assignments, grading, course expectations, professor expectations, and communication are emphasized as means to demonstrate integrity. Moreover, professors can also focus on consistency, fairness, and objectivity in grading, adhering to course expectations, and treatment of students as well as their own (i.e., professor) expectations and personal mistakes. Professors can also model integrity with strong personal stances on ethical issues, fair treatment of others, and hard work. Similarly, professors can emphasize integrity by highlighting real-world examples, encouraging student critical thinking, and providing personal stories. In alignment with benevolence, transparency (e.g., grading, student expectations, professor expectations, etc.) can support integrity. The remaining dimensions of integrity include humility, accountability, respect and honesty, flexibility, and compassion.

5. Limitations and future research

The study has several limitations that merit further research. Above all, the study should be replicated across the globe and across academic disciplines to understand how the characteristics of a particular school, field, or culture may impact the ABI trust model. Furthermore, scholars could pinpoint the effectiveness of the different ABI tactics offered in Tables 3–5 through instructional interventions by measuring how trust builds throughout the semester. Additionally, several of the demographic factors for which we controlled, including class type and expected student grade in the course as well as professor age, gender, and country of origin showed significant effects, particularly among undergraduate students (Fig. 2). Scholars could test these impacts in further detail.

Moreover, we did not incorporate the level of student learning into the analysis. While scholars have evaluated student satisfaction with associate learning environments (e.g., online, face-to-face, hybrid) and specific pedagogies (Garnjost & Lawter, 2019; Nortvig et al., 2018; Wu et al., 2010), the link between student satisfaction and learning has yet to be thoroughly examined (Lo, 2010). As such,

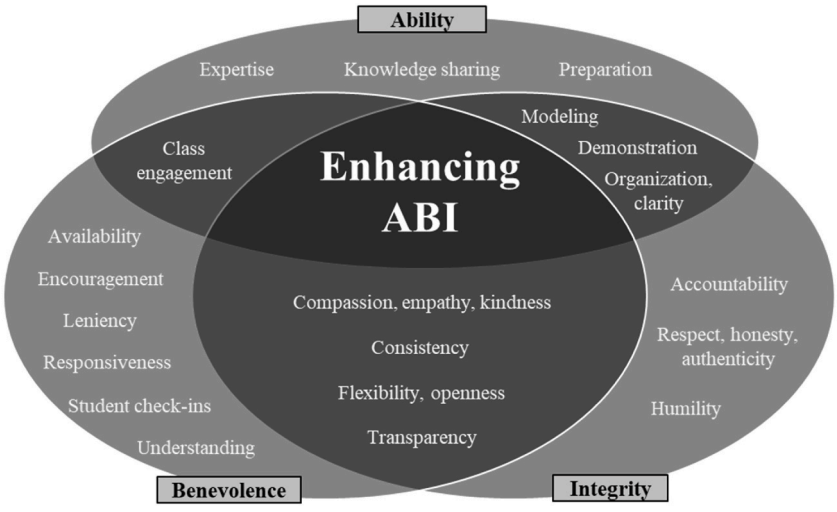

Fig. 3. Dimensions of faculty ability, benevolence, and integrity.

Table 3
Dimensions of ability.

Dimension	Explanation	Count
Demonstration	Demonstrate application and link theory of course content o Real-world examples, current events o personal stories o professional certifications	26
Knowledge sharing	Share course content via o multiple pedagogical methods/tools o multiple perspectives o simplification of complex topics	14
Expertise	Demonstrate expertise of content via o personal credentials o professional experience o mastery of knowledge	9
Class engagement	Engage class in discussions o provide thorough responses to student questions	8
Organization, clarity	Maintain clarity and organization of teaching and course content	6
Preparation	Thoroughly prepare course materials o teaching lessons, study aids, o anticipation of student questions, struggles	6
Modeling	Model professional behavior	3

Table 4
Dimensions of benevolence.

Dimension	Explanation	Count
Flexibility, openness	Be flexible with and open to o assignments (e.g., expectations, due dates) o student circumstances (e.g., emergencies) o student learning styles o individual opinions o student feedback	19
Compassion, empathy, kindness	Demonstrate compassion, empathy, benefit-of-the-doubt with o student mistakes o student concerns o inter-student (e.g., team) issues	14
Understanding	Strive to understand o student names and backgrounds o student goals and challenges	10
Responsiveness	Deliver fast, frequent communication across multiple media o student questions and issues o assignment reminders, grading	9
Class engagement	Engage class with o interactive discussions and questions	8
Leniency	Be lenient with grading, missed assignments	6
Encouragement	Provide positive feedback on o student learning, goal pursuit/progress o student grades	6
Availability	Display availability for help o before/after class, outside class time o non-course activities (e.g., honors project) o one-on-one assistance	6
Student check-ins	Conduct brief check-ins with students o progress on assignments o personal status	4
Transparency	Maintain transparency of o grading, student expectations o course policies	4
Consistency, fairness, objectivity	Consistency, fairness, and objectivity when o grading o setting or adhering to course expectations	4

future research could study if and how trust also improves student learning as well as better distinguish superficial engagement of trust to merely improve teaching evaluations. For example, testing a mediation model with satisfaction functioning as the link between trust and student learning could provide valuable insight into the mechanisms by which trust can improve learning. Notably, we encourage researchers investigating these relationships to capture both the subjective (e.g., student perceptions of their learning) and more objective (e.g., pre- and post-testing) aspects of learning given growing concerns of grade inflation and the pressure in higher education

Table 5
Dimensions of integrity.

Dimension	Explanation	Count
Organization, clarity	Maintain clarity and organization of o assignments, grading o course and student expectations o instructor expectations o communication	17
Consistency, fairness, objectivity	Consistency, fairness, and objectivity when o grading, syllabus execution o setting or adhering to course expectations o behavior, treatment of students o instructor expectations o admitting personal mistakes	16
Modeling	Model integrity via o personal ethical stances o treating others fairly o communicating personal mistakes o hard work	13
Demonstration	Demonstrate application of ethics and integrity in course via o real-world examples, current events o critical thinking o personal stories, consequences of behavior	12
Transparency	Maintain transparency of o student expectations, course information o grading, evaluation of students o instructor expectations o gaps in instructor knowledge	12
Humility	Display humility when o acknowledging personal mistakes	9
Accountability	Display accountability for o students o promises made to students o personal mistakes	8
Respect, honesty	Display o respect and politeness to students o honesty and authenticity	5
Flexibility, openness	Be flexible with and open to o student ideas o grading o student feedback and self-improvement	3
Compassion, empathy, kindness	Demonstrate compassion, empathy, benefit-of-the-doubt with o grading o student concerns	3

for instructors to prioritize student evaluations over learning outcomes.

As seen in other organizational constructs such as organizational citizenship behaviors (Bolino et al., 2013), educational researchers could similarly explore how instructors might misuse trust-building activities as a means to inflate their student evaluations. For instance, would instructors striving to increase their evaluations prioritize the benevolence component of ABI while ignoring the ability and integrity components? If so, are there individual differences that might predict this behavior? This line of work presents an interesting avenue for researchers interested in instructor motives and their relation to student evaluations, satisfaction, and learning.

Additionally, scholars can evaluate more specific conditions, such as the balance of teaching and research, that could enable or prevent professors from effectively establishing ABI (Berbegal-Mirabent et al., 2018). As another opportunity, many of the dimensions of ABI established in the faculty survey align with extant literature on teaching effectiveness. The ABI model of student trust in professors could, therefore, be explored as an organizing framework to consolidate the fragmented base of teaching effectiveness literature.

6. Conclusion

Improving student retention and persistence in higher education has been a long and largely unproductive battle. Significant amounts of research and action have unfortunately resulted in minimal improvements in retention and persistence rates. While universities have begun to take more accountability for their own effectiveness, we must challenge ourselves as professors to ensure that we are doing everything in our power to improve student retention and persistence. Enhancing ABI with our students offers a practical approach for faculty to build trust and student satisfaction. We challenge scholars to extend this quest to understand how to further enhance student satisfaction and subsequent retention and persistence.

Declaration of competing interest

All authors disclose that there were not any financial and/or personal relationships with other people or organizations that inappropriately influenced their work on this research project.

Data availability

The data that has been used is confidential.

APPENDIX A. STUDENT SURVEY ITEMS

Consider one BUSINESS COLLEGE professor who is teaching a course that you are currently taking. Then answer all remaining questions in this survey about that professor.

Construct	Item	
Ability*	A1	My professor is very capable of performing his or her job.
	A2	I feel very confident about my professor's skills.
	A3	My professor is not well qualified.
	A4	My professor has much knowledge about the course material.
	A5	My professor has specialized knowledge that can increase my understanding of the course material.
Benevolence*	B6	My professor is very concerned about my welfare in this course.
	B7	My needs and desires are very important to my professor.
	B8	My professor would not knowingly do anything to negatively affect my grade in this course.
	B9	My professor really looks out for what is important to me.
	B10	My professor will not go out of his or her way to help me.
Integrity*	I11	My professor tries hard to be fair in dealings with students in the course.
	I12	Sound principles seem to guide my professor's behavior.
	I13	I never have to wonder whether my professor will stick to his or her word.
	I14	I don't like my professor's values.
Student satisfaction*	S15	Overall, I am satisfied with the professor.
	S16	The instructor created an environment which motivated me to learn.
	S17	Overall, I would rate this instructor as effective.
	S18	I would not recommend to other students that they take a course from this instructor.
Trust*	T19	I trust this professor

* Likert scales from 1 – strongly disagree to 7 – strongly agree.

APPENDIX B. FACULTY SURVEY ITEMS

How do you demonstrate your **ability** as a professor to your students? Consider your ability as a teacher or instructor, your subject matter expertise and anything else that you feel is important as it relates to your students.

How do you show **benevolence** to your students? In other words, how do you demonstrate consideration or thoughtfulness to them?

How do you show or exhibit **integrity** to your students? In what ways do you exemplify honest and ethical behavior to them?

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