Research Article

The Impact of Instructional Effectiveness on Soft Skills Development among College Students: Mediating and Moderating Mechanisms

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Abstract

Despite growing demand by employers across industries to hire employees with soft skills, a soft skill mismatch exists between skill sets that companies are seeking and those possessed by top talent. Thus, collegiate academic programs must equip students with both discipline-based knowledge and the necessary soft skills to meet industry needs and achieve success in their careers. This study investigates instructors' role in facilitating college students' soft skill development using two theoretical foundations. The five-scale survey instrument was refined through expert review and then disseminated at a U.S. university. The 410 respondents were students from all class levels and a range of disciplines. We used nonparametric bootstrap analysis to examine underlying mechanism of the relationship between instructional effectiveness and students' soft skill development, through the mediating effects of career self-efficacy and career motivation, as well as the moderating role of students' attitude toward higher education. Results and findings are discussed.

Keywords: Soft skills; Pedagogy; Career preparation; Customer service industries

Introduction

Soft skills are a combination of an individual's personal qualities, interpersonal skills, and the additional skills/knowledge they utilize in both their personal and professional lives [1]. The soft skills revolution has stemmed from the increasing role of automation and artificial intelligence (AI), as companies across industries have implemented these technologies to manage technical tasks [2]. Digital disruption has perhaps been most significant in customer-centric industries, such as tourism and retail, with these advancements rendering many job roles obsolete [2]. As automation has increased, so too has customers' demand for meaningful interactions with brands' human touchpoints. As stewards of the customer experience, a company's frontline employees now have an even more significant role in the business's ability to differentiate itself in a saturated market. This explains the growing employer demand for soft skills, which are uniquely human capabilities [3]. A 2017 Deloitte Access Economics report underscored this increased demand, explaining that by 2030, two in three jobs would rely on soft skills [3].

Despite the mounting need for job seekers to demonstrate both soft and hard skill competencies, LinkedIn's 2018 Workforce Report confirmed that a soft skill mismatch exists between the skill sets that companies are seeking and those possessed by top talent [4]. Kok S [5] described this mismatch as the distance between a job seeker's skills and a job's requirements, with a

smaller gap indicating a better match between skills and tasks. The same LinkedIn Report identified leadership, communication, collaboration, and time management as the four most in-demand soft skills, with the most desirable candidates being proficient in all four areas [4]. In 2020, the HR Research Institute surveyed 261 human resources professionals about skill development in their workplaces. The study revealed that 85 percent of respondents perceived soft skills competencies as a better indicator of long-term employee success than hard skills, yet despite this, the respondents' companies were more likely to focus on hard skills training [6]. The findings demonstrate that despite many companies not investing in professional development and training to support soft skill development, employees' soft skill proficiency remains a determinant of their aptitude for success and advancement in their organizations.

While hard skills are teachable, soft skills are cultivated, meaning that academic settings can provide invaluable support by nurturing students' soft skill development through experiential and collaborative learning environments that position hard and soft skill development as complementary endeavors. To achieve this goal, college instructors across disciplines must develop purposeful pedagogical approaches for how to situate soft skill development into each of their courses. Embedding soft skill development in collegiate curriculums ensures that these future professionals are equipped with both the necessary hard (i.e., technical) and soft skills to meet industry needs and achieve success once they embark on their careers. In today's competitive job market, the importance of equipping college students with both discipline-based knowledge and soft skills cannot be overstated. To that end, the purpose of this study is to investigate the role of the instructor in facilitating college students' soft skill development. Particularly, the study examines the underlying mechanism of the relationship between instructional effectiveness and students' soft skill development, through the mediating effects of career self-efficacy and career motivation, as well as the moderating role of students' attitude toward higher education.

Review of Literature

Conceptual framework

The conceptual framework amalgamates two major theoretical foundations, social efficiency theory and Bandura's [7-9] social cognitive theory (SCT). This framework provides a sound theoretical foundation to explore the relationships and effects (i.e., direct, mediating, moderating) among variables (i.e., instructional effectiveness, career motivation, career self-efficacy, attitude toward higher education, soft skill development) in the present study.

Social efficiency describes the need to develop individuals who have the skills to meet society's current workforce needs and have the ability to adapt as those needs evolve [10]. One of the main purposes of higher education is to prepare graduates to enter

the workforce with these intellectual capacities and flexible skills [11]. In order to remain competitive as an institution, colleges and universities must meet the needs of students and of the businesses and industries that seek out graduates [10]. However, there is evidence of a widening gap "between what employers want out of today's college graduates and what schools are producing" [12].

Social efficiency, in the academic setting, means that instructors set the agenda for what students will learn and how they will learn it, with the aim of helping them develop essential skills (e.g., soft skills) to meet society's needs [13,14]. Social efficiency utilizes instructional methods characterized by power, control and efficiency, and has been widely criticized for its business-driven, rather than a learner-centered approach [14,15-20]. This research adopts Schiro's [19] perspective that a learner-centered and social efficiency approach can coexist in the classroom. In this context, the classroom becomes a place where students are motivated to develop their interests and innate capabilities, while gaining a "profound understanding of their position in the world and what they can present to it when they are through with their learning" [13]. For example, instructors who want to address the soft skill mismatch between college graduates and industry demands can create curriculums and learning environments that convey to students the importance of these competencies to their professional futures [4,5]. This approach simultaneously supports the individual benefits (e.g., economic, professional development) that students derive from higher education, and the benefits that they, as college graduates, will produce for society [10,18,19].

This research adopts Bandura's [7-9] perspective of social cognitive theory, which conceptualizes motivation as the processes that prompt and sustain goal-directed activities. The theory proposes that one's internal motivational processes are constantly evolving and that reciprocal interactions exist between three sets of influences (i.e., behavioral, environmental, personal; Schunk & DiBenedetto, 2020). These reciprocal influences are applicable to learning and performance in both educational and professional settings.

The personal processes of SCT are goals and self-evaluations of progress, self-efficacy, social comparisons, values, outcome expectations, and attributions [21]. If at the beginning of the semester, a student commits to earning an A as their final grade in a course, this goal focuses the student's efforts toward achieving that outcome. Throughout the semester, the student uses available cues such as their grades on individual assignments, instructor feedback, and social comparisons to evaluate their goal progress (i.e., self-evaluations of progress) and, if necessary, adjust their behaviors. SCT suggests that positive self-evaluations strengthen self-efficacy beliefs, which enhance motivational outcomes [22,23]. Personal motivational influences also include values (i.e., perceived importance or usefulness of learning), outcome expectations (i.e., beliefs about the probable results of one's efforts), and attributions (i.e., one's beliefs about why an outcome occurred; Schunk &

DiBenedetto, 2020) [23]. Instructors influence students' personal processes and are influenced by them when their observations and evaluations of progress lead them to implement changes geared toward sustaining students' motivation to achieve the desired course outcomes [24]. Instructor self-efficacy (e.g., ability to engage students, instructional quality) is also an important influence to consider, as it too can affect students' motivational outcomes [25-27].

Central to SCT is the critical role of the social environment in facilitating motivation, learning, and self-regulation. In the classroom context, behavioral influences on motivational outcomes are the instructional methods (e.g., activities, modalities) and the extent to which they encourage students to expend effort, persist on difficult objectives, and achieve at high levels [21]. Likewise, environmental processes affect individuals' motivational processes and outcomes. In the classroom context, environmental processes relate to the role of the instructor in guiding the student learning experience [28,29,23] (e.g., perceived teacher credibility, classroom climate, feedback, opportunities for reflection).

Taken together, social efficiency and SCT yield a collaborative and experiential learning approach where instructors consider the needs of the external environment (e.g., changes in the workplace and workforce) and embed those needs in their pedagogical practices, with the goal of equipping future professionals with the skills to thrive in today's workforce [30]. This coincides with the role of the instructor in cultivating students' motivation, the central process in SCT. Instructors only have the ability to shape the behavioral and environmental processes in their classrooms, with students assuming responsibility for developing the processes that underlie motivation (i.e., self-evaluations, self-efficacy beliefs) and that help to sustain it. Importantly, SCT posits that motivated and self-efficacious individuals possess the agency to "exercise control over their personal destinies" [9], employing flexible and critical thinking to develop new skills (e.g., soft skills), both in the classroom and in their careers [23,21,31]. Therefore, the relationship between instructional effectiveness, career self-efficacy, career motivation, and soft skills development merits investigation. Attitude toward higher education is also of interest, as its influence on behavioral intention in the educational setting is explored in multiple contexts [32-34]. To the authors' best knowledge, no study to date has explored these relationships in one structural model.

Soft skills development

The present study adopts and adapts Crawford et al. [35] and Crawford and Dalton's [36] conceptualization of soft skills as behavioral, social and cognitive abilities that include the following clusters: communication skills, problem-solving skills, self-management skills, teamwork skills, and leadership skills. Soft skills are instrumental in helping employees navigate uncertainties in the work environment, which highlights their importance in rapidly evolving sectors, such as tourism and retail, and for responding

to unpredictability in the larger market environment [37,38] (e.g., economic volatility, technological change, global pandemics).

It is important to acknowledge that soft skill development requires a requisite level of emotional intelligence [39]. EQ is defined as one's "ability to recognize, understand, manage, and reason with emotions" [40], and consists of four constructs: self-awareness, self-management, social awareness (i.e., empathy) and relationship management [41]. Employees with a high level of EQ, and by extension, soft skills competencies, are better able to collaborate and communicate with colleagues of all backgrounds, in turn strengthening company culture and organizational performance [39]. Underscoring the interrelatedness of EQ and soft skills, the National Soft Skills Association [42] stated, "[e]motional intelligence skills form the base of competencies that all soft skills are built upon" (para. 5). Similar to soft skills, EQ can be cultivated through purposeful pedagogy to prepare future professionals for success in the increasingly heterogeneous workplace [43].

Soft skills research is increasing in scope, yet limited studies exist that explore the relative importance of instructional effectiveness and other intrinsic influences (e.g., career motivation, career self-efficacy, attitude toward higher education) on soft skill development in the academic setting [28,3744]. Particularly, there is no study examining the mediating and moderating effect of instructional effectiveness on soft skill development [27,45]. To fill this gap, this study seeks to understand these intrinsic influences and the role of the instructor in facilitating students' soft skill development. It is noteworthy that a gap is also evident in the perceived importance of soft skills among students, faculty and industry employers, with one study concluding that communication is the most valued soft skill among these groups, yet finding no agreement about the relative importance of other soft skills [38] (e.g., leadership skills, problem-solving skills).

Variables and Hypothesis Development

Instructional effectiveness

The researchers define instructional effectiveness as the extent to which instructors successfully employ a variety of instructional strategies to actively engage students with varying learning styles (i.e., auditory, visual, kinesthetic) and developmental needs in the learning process [46]. No studies in the extant literature explore the direct effect of instructional effectiveness (IE) on soft skill development (SSD). However, the literature does document the positive influence of IE on student engagement [28,47-51], student attitudes [34,52-54], and performance [27,55-58]. In addition, evidence suggests that teacher credibility and classroom climate both influence students' openness to exploring new course topics and approaches, such as soft skill development activities [28,29,59,60]. Therefore, we propose that the extent to which SSD is integrated successfully into collegiate courses is largely contingent on IE. The following hypothesis is introduced to investigate this proposition.

H1: Instructional effectiveness positively and directly influences soft skills development.

Career self-efficacy

The central premise of Bandura's SCT is that all individuals strive for a sense of agency, "or the belief that they can exert a large degree of influence over important events in their lives" [23]. The agentic perspective requires both emotional intelligence and self-efficacy, or the perception that one has the competency to learn and perform actions at designated levels [39]. Self-efficacy is a key motivational process that one develops through goal oriented and evaluative self-reflection [8]. In the present study, career self-efficacy represents one's perceived preparedness to attain and succeed in a post-graduation job [61,62].

Students' self-efficacy, or their perceived capability to perform academically, is an important measure of instructional effectiveness. Likewise, IE is a determinant of students' perceptions of career readiness [63]. For example, instructors who encourage the voicing of opinions and feedback in their classes increase students' sense of self-efficacy and self-esteem, both of which are determinants of career-self efficacy [45,54,64,65]. Instructor-student rapport and encouragement, both important dimensions of IE, also influence students' career self-efficacy [66] and career motivation [27,67]. Students often view instructors as gatekeepers to careers in the field, learn vicariously through the experiences instructors share with their classes, and utilize instructors' expertise to gain an understanding of the industries they are preparing to enter [64,68]. Research also documents the impact of negative instructor behaviors (e.g., stress, negative emotional expression) and their detriment to students' self-efficacy, career readiness, motivation, and emotions [69-71]. In short, effective instructors positively influence many student outcomes (e.g., motivation, engagement, performance) that facilitate career self-efficacy [26,29,68]. Therefore, it is reasonable to assume that a direct influence exists between IE and career self-efficacy and IE and career motivation. In turn, studies have explicated a positive association between career self-efficacy and students' engagement in career preparation behaviors, such as soft skill development [54,64,72]. This suggests that career self-efficacy directly influences soft skill development. The researchers propose the following hypotheses to investigate these propositions.

H2: Instructional effectiveness positively influences career self-efficacy.

H3: Career self-efficacy in turn positively influences soft skills development.

H4: Instructional effectiveness positively influences career motivation.

Career motivation

Career motivation encompasses the motivational resources one employs in the control of their current work life and in the strategies one implements (e.g., goal setting, development

opportunities) to set the direction for their future work life [73]. Social cognitive theory (SCT) confirms the positive relationship between self-efficacy beliefs and motivational outcomes [22,23]. Self-efficacious students exhibit high levels of career exploratory intentions [74] and feel confident in their ability to make effective career-related decisions [75]. SCT theorists, Lent, Brown, and Hackett [70] introduced a framework of the personal, contextual, and experiential factors that affect students' career-related choice behavior, with analyses revealing the positive influence of self-efficacy on career choice behaviors. Similarly, Lent and Hackett [76] found that low levels of self-efficacy correlate with career indecision. Tsai et al. [72] also reported the positive and significant influence of career-self efficacy on career preparation behaviors. Researchers have confirmed that students with a high level of career motivation engage in behaviors geared toward career preparedness [64,72,77]. Therefore, it is reasonable to suggest that students with a high level of career motivation will be encouraged to develop their soft skills, especially if they become aware of the growing demand among employers to hire college graduates with these competencies. The researchers propose the following hypothesis to investigate this proposition.

H5: Career motivation in turn positively influences soft skills development.

Attitude toward higher education

It is widely accepted that attitudes are determinants of behavioral outcomes, and research on students' attitudes toward higher education has provided meaningful insights for pedagogical practice. The basic premise of this scholarship is that students with favorable attitudes toward the educational setting (e.g., course content, instructors, course delivery methods, expected outcomes) will be more committed to achieving desired outcomes [33,34,47,52,78-80].

Azjen and Fishbein's [81] theory of planned behavior, which has been employed to examine the influence of beliefs and attitudes on an array of personal and social behaviors, has formed the theoretical foundation for many studies on students' attitudes toward higher education [32-34]. For example, Abun et al. [32] conducted a comprehensive study to explore students' attitudes toward learning about the environment and human's role in environmental degradation. Using the theory of planned behavior as a framework, the researchers developed a scale to explore how students' cognitive and affective attitudes toward environmental learning influenced their engagement with the subject matter and influenced their behavioral intention to join the environmental movement (e.g., practicing conservation, donating money/time) after the class's conclusion. The present study adopted a similar scale, to investigate how students' attitudes support or hinder an increase in soft skills proficiency.

The literature documents the positive influence of instructional effectiveness on student attitudes [34,52,53,59]. Therefore, it is reasonable to assume that attitude will strengthen the relationship

between instructional effectiveness and students' soft skill development. The researchers propose the following hypothesis to investigate this proposition.

H6: Attitude positively moderate the relationship between instructional effectiveness and soft skills development. Higher attitude leads to stronger relationship.

Proposed Model

Based on the above discussion, the researchers explicated six hypotheses and a conceptual model (Figure 1) to illustrate the proposed relationships among the study variables. A diagram shown in Figure 1 is called a parallel mediator model. IE is the independent variable instructional effectiveness. M1 is the mediator career self-efficacy and is represented by the career self-efficacy scale. M2 is the mediator career motivation and is represented by the career motivation scale and its five subscales. M3 is the moderator attitude toward higher education and is represented by six items. Y is the dependent variable soft skill development and is represented by five subscales. All relationships are hypothesized in the positive direction. Both mediation mechanisms are modeled simultaneously in one integrated model. Attitude is hypothesized to positively moderate the relationship between instructional effectiveness and soft skills development (Figure 1).
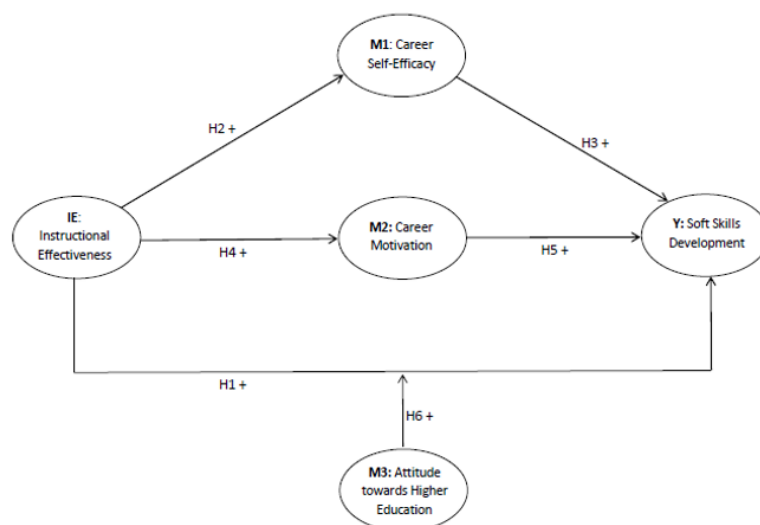

Figure 1: Proposed model.

Instrument development

The study used a cross-sectional survey design to collect data. The original instrument utilized five scales. Four scales were adapted from previous research. Using literature review [28,29,48,55,58,59,60,65,66] and interviews with pedagogical researchers, the authors developed the fifth scale to measure instructional effectiveness scale. Career self-efficacy was measured using the Career Decision Self-Efficacy Scale [61,62]. Items for the career motivation scale were adopted from Strauss, Griffin, and Parker [73]. The soft skills development items were adopted using Crawford et al. [35]. Finally, items for the attitude toward higher education scale were from Abun, et al. [32].

A preliminary analysis of data from MTURK revealed that some items were ambiguous and not well aligned with other items, therefore, revisions of the instrument were necessary. First, expert review was sought for each item in each variable set. These individuals, who had expertise in psychometric research design and scale development, were asked to evaluate each item using a scale

[82-84] (i.e., clear, unclear, delete, double-barreled, redundant). A space was provided for suggested rewrites of each item. Next, the instrument was sent to professionals, identified as experts on the topics presented in the instruments. These individuals were instructors who had implemented soft skill development strategies in their courses, internship coordinators with an understanding of the soft skill mismatch among college graduates and employer demands, and industry professionals who supervise recent college graduates. These 20 professionals accessed the instrument in Qualtrics and reviewed each item in each variable set.

Based on expert reviews, the Likert scale was changed from a five-point scale to a 4-point scale [85] (i.e., 1= No Confidence at All to 4= High Confidence). Although the structure of response sets is a perennial debate among survey researchers, evidence suggests that excluding the midpoint (i.e., neutral choice) is appropriate when exploring topics (e.g., perceptions of self-efficacy) for which respondents will or should hold an opinion [86,87]. Eliminating non-neutral options is also useful for mitigating low motivation, as respondents must give careful thought to each question. Social

desirability bias is also minimized, meaning that respondents are not tempted to select the option they perceive to be more socially acceptable or desirable [88].

Psychometric history of the measures

Instructional effectiveness scale: The researchers developed the instructional effectiveness scale through extensive literature review [28,29,48,55,58,59,60,65,66] followed by interviews with pedagogical researchers. The authors revised the 7-item scale following expert review of the survey instrument discussed above. This is the first administration for the scale, thus, neither prior reliability nor validity data were available.

Career self-efficacy scale: Career self-efficacy was measured using the Career Decision Self-Efficacy Scale (CDSE) developed by Betz, Klein, and Taylor [61], and further revised by Hartman and Betz (2007). It is a 25-item scale of an individual's self-efficacy, containing five skill domains considered critical for career development. The scale consists of five subscales (i.e., accurate self-appraisal, gathering occupational information, goal selection, making plans for the future, problem solving). Previous researchers found the internal consistency of the subscales ranged from α = .73 -.75. Researchers also found that the five-factor theoretical basis for the instruments was only marginally supported.

Career motivation scale: Items for the career motivation scale were taken from Strauss, Griffin, and Parker [73]. The scale consists of five subscales: future orientation, career identity, future work self-salience, career aspirations, and proactive career behavior, with internal consistency ranging from α = .77- .92. Previous confirmatory factor analyses showed that each scale was a distinct factor.

Soft-Skills development subscale: The five revised soft skills subscale items were developed using the framework of Crawford, Lang, Fink, Dalton, and Fielitz [35]. Subscales used from this study included communication skills (5 items), problem-solving skills (8 items), self-management skills (5 items), teamwork skills (6 items), and leadership skills (8 items). Previous researchers' [35,39] use of these subscales only computed rank order of the items; therefore, no alpha coefficient was computed.

Attitude toward higher education. The items for the scale were taken from Abun et al. [32]. The instrument consists of six items measured on a revised four-point Likert scale with no middle point. The original use of the scale was only as a descriptive view of student's attitude toward higher education. Therefore, no alpha coefficient was computed.

Data Collection

The target population for this research was college students at all class levels (i.e., freshman-senior) and from a range of academic disciplines. Data were collected from students in one college, a college of agriculture at a public land grant university in the southeastern United States, which is comprised of 14 academic departments in both "hard science" (e.g., plant and soil sciences) and "soft science" (e.g., tourism, retail) disciplines. The researchers emailed the cover letter and link to the revised survey instrument on Qualtrics to all faculty and staff who were teaching courses in the college in fall 2020, with a request to disseminate the survey to their classes. Instructors were encouraged to offer students points of extra credit for their participation and provide an alternate bonus assignment if a student chose not to complete the survey but still wanted to earn extra credit. The survey's landing page featured the cover letter that explained the purpose of the study, the benefits of participating, and appropriate contact information for the PI and the university's institutional review board. The letter also included confidentiality information for data protection and the length of time expected to complete the survey (i.e., 20-30 minutes). Participation by instructors (i.e., distribute survey to their students, award students' extra credit for survey completion) was optional.

Data Analysis Results

The data cleaning process garnered 410 usable responses. Instructors' decision to disseminate the survey to their students was voluntary, as was students' decision to participate in the study. The majority of the participants were white (77.5%), female (77.7%), between the age of 18 to 21 (86.8%) and were either freshman (38.8%) or seniors (31.8%). Data were analyzed using variance based Partial Least Square Path Modeling (PLM-PM) with SmartPLS 3.0 [89]. Among the total 85 items of the structure model, eight items were excluded due to low loadings ($\leq$ 0.7). The removed set include two items from career identity salience, and one item from career aspiration that are both under career motivation, one item from goal selection, and one item from problem solving, which are both under career self-efficacy, one item from self-management under soft skills development, and two items under attitude.

Data Analysis of a Reflective-Reflective Higher Order Construct Model

The PLS-SEM analysis consists of measurement and structural model. The measurement model establishes the reliability and validity of the constructs. The structural model assesses the significance of the hypothesized relationships (See H1 – H6). The current study presents a Reflective-Reflective Higher Order Construct Model [90]. Before assessing the structure models, the measurement model needs to be evaluated at the lower order first, and then at its higher order [90].

Reliability and Validity of Lower Order Constructs

To examine the measurement model of the Lower Order Constructs (LOC), factor loadings were firstly evaluated. None of the items in the measurement model presented a cross-loading issue or a loading value less than .70. Thus, no items were removed. Next, Variance Inflation Factor (VIF) statistic was used to evaluate multicollinearity across the items [91]. Hair et al. [92] note that multicollinearity is not violated if the VIF value is less than 5.00.

The current study results showed that VIF value for each of the indicators was below the recommended threshold (i.e., VIF = 1.311 – 3.071). Further, Cronbach's Alpha values (α) of the constructs ranged from 0.762 to 0.916 whereas Composite Reliability values (CR) ranged from 0.848 to 0.933, both supporting well-established construct reliability [92].

In terms of construct validity, convergent validity and discriminant validity were securitized. When the Average Variance Extracted (AVE) value is greater than or equal to the recommended value of .50, items converge to measure the underlying construct [91]. The current study results showed that all AVE statistics exceed .50 (i.e., AVE = 0.571 – 0.807), indicating satisfied convergent validity. Additionally, square root values of AVE for all constructs were found greater than their respective correlations with other constructs, providing evidence for the establishment of discriminant validity. See Table 1 for details.

Table 1: Reliability and Validity of Lower Order Constructs.

Lower Order Constructs	Cronbach's α	CR	AVE
Career Aspiration	0.855	0.902	0.698
Career Identity Commitment	0.88	0.926	0.807
Communication	0.852	0.894	0.629
Future Work Self-Salience	0.862	0.916	0.784
Future Orientation	0.856	0.896	0.633
Goal Selection	0.786	0.875	0.7
Instructional Effectiveness	0.916	0.933	0.668
Leadership	0.914	0.93	0.625
Occupational Information	0.812	0.869	0.571
Planning	0.762	0.848	0.583
Career Self-Efficacy-Problem Solving	0.766	0.85	0.587
Soft Skills-Problem Solving	0.905	0.924	0.602
Self-Management	0.786	0.862	0.611
Self-Appraisal	0.839	0.892	0.675
Teamwork	0.878	0.908	0.622

Reliability and Validity of the Higher Order Constructs

Once the reliability and validity of the LOCs were established, the next step was to examine the reliability and validity of the Higher Order Constructs (HOC). Each HOC was assessed for its reliability and convergent validity. Further, the HOCs were evaluated for discriminant validity with other LOCs in the study as recommended by Sarstedt, et al. [90]. The results showed Cronbach's Alpha values (α) of the three HOCs were 0.834, 0.930 and 0.943 respectively and their AVE values were all above 0.50. Fornell and Larcker [91] criterion test showed that the square root values of AVE for the HOCs were higher than their respective correlations with other constructs. Therefore, both reliability and validity of the HOCs were established. See Table 2 for details.

Table 2: Reliability and Validity of Higher Order Constructs.

Higher Order Constructs	Cronbach's α	CR	AVE
Career Motivation	0.834	0.888	0.666
Career Self-Efficacy	0.943	0.957	0.816
Soft Skills	0.93	0.947	0.781

Hypotheses testing

A nonparametric bootstrap analysis was utilized to examine the relationships within the path model. The results showed that instructional effectiveness (β = 0.192, t = 3.553, p <.01) significantly and positively predicts soft skills development. Additionally, instructional effectiveness significantly and positively influences career self-efficacy (β = 0.498, t = 10,686, p <0.01), which in turn, affects soft skills development (β = 0.413, t = 4.401, p < 0.01). Meanwhile, instructional effectiveness also exerts a strong and positive impact on career motivation (β = 0.460, t = 9.869, p < 0.01), which then influences students' soft skills development positively (β = 0.225, t = 3.390, p < 0.01). No significant moderating effect was found with attitude on the relationship between instructional effectiveness and soft skills development (β = -0.059, t=0.768, p > .05). Table 3 summarizes the hypotheses testing results.

Table 3: Results of Hypothesis Testing.

Hypotheses		Path Coefficient	t-Value	Supported?
H1	IE→Y	0.192	3.553	YES**
H2	IE→M1	0.498	10.686	YES**
H3	M1→Y	0.413	4.401	YES**
H4	IE→M2	0.46	9.869	YES**
H5	M2→Y	0.225	3.39	YES**
H6	M3 moderates IE→Y	-0.059	0.768	NO

Notes: IE: Instructional Effectiveness; Y: Soft Skills Development; M1: Career Self-Efficacy; M2: Motivation; M3: Attitude; *$p < 0.05$; **$p < 0.01$.

Table 4: Mediation Analysis Results.

Total effect (IE→Y)		Direct effect (IE→Y)		Indirect Effects of IE on Y				
Coefficient	p	Coefficient	p		Coefficient	SD	t	p
0.52	0	0.203	0	IE→M1→Y	0.205	0.043	4.806	0
				IE→M2→Y	0.112	0.036	3.138	0.002

Mediation Analysis

Mediation analysis was performed to ass the mediating role of career self-efficacy and career motivation. The results (Table 4) revealed significant ($p < 0.01$) partial mediating roles of career self-efficacy ($\beta = 0.205$, $t = 4.806$, $p < 0.01$) and career motivation ($\beta = 0.112$, $t = 3.138$, $p < 0.01$). The total effect of instructional effectiveness on soft skills development was significant ($\beta = 0.520$, $t = 9.949$, $p < 0.01$), with the inclusion of the mediators, the direct effect was still significant ($\beta = 0.203$, $t = 3.531$, $p < 0.01$). Hence career self-efficacy and career motivation mediate the relationship between instructional effectiveness and soft skills development.

Discussion and Conclusion

All hypotheses were supported except for H6, as attitude toward higher education did not moderate the relationship between instructional effectiveness and soft skills development. Instructional effectiveness positively and directly influenced soft skills development (H1), confirming that the academic setting does provide an environment that is appropriate for cultivating soft skills, in addition to discipline-based learning [13]. The model results were consistent with previous pedagogical research findings [28,29,93], which suggest that instructor role (e.g., openness, credibility) may be the most important factor influencing students' engagement with and motivation to explore a particular topic (e.g., assignments geared toward soft skills development). In line with social cognitive theory, the findings also confirmed the important role of the instructor in cultivating agency among students [9,60], in this case by increasing their career self-efficacy (H2) and career motivation (H4). When instructors help students develop high levels of self-efficacy (H3) and motivation (H5) toward their future careers, including emphasizing the importance of developing soft skills competencies in and beyond the classroom, the findings suggest that a direct and positive effect on soft skills development may result. It is reasonable to assume that graduates who embark on their careers with high levels of self-efficacy and motivation will take the steps that are necessary for success, whether that means continuing to hone their soft skills competencies, hard skills competencies, or both [21,23,31].

Furthermore, T-tests were also conducted with the dimensions of soft skills development as DVs and the demographic variables as IVs. Significant differences were found across gender, race (majority vs. minority), and class level (lower vs. upper class levels). Gender differed on self-management, teamwork, and leadership, with the female group rating significantly higher than the male group. Race also differed on teamwork and leadership skills, with the minority group (i.e., all the non-white categories) rating significantly lower than the majority group. These findings can be useful for instructors to consider how they can monitor certain cohorts of students' (e.g., males, minority students) progress and provide additional support to ensure that all students reach the desired performance benchmarks for soft skills development in their courses. Class level differed on self-management skills, with the upper-class group rating significantly higher than the lower-class group. This underscores the importance of integrating soft skills development in classes at all academic levels, as these skills are developed over time and should be reinforced over the course of students' academic experience. Importantly, students in the "hard science" and "soft science" majors did not differ across the soft skills, meaning that students in all disciplines are developing soft skills competencies and that targeted coursework can only strengthen their capabilities. This finding, coupled with the importance of instructional effectiveness, suggests that instructors across all disciplines, not just programs that naturally lend themselves to

soft skills development (e.g., customer-focused disciplines) can integrate purposeful soft skills development into their curriculums.

Limitations and Future Research

This study contributes to the growing body of research on soft skills development by introducing a reliable and valid instrument to investigate the relative importance of instructional effectiveness and other intrinsic influences (e.g., career motivation, career self-efficacy, attitude toward higher education) on soft skill development in the academic setting. The study's limitation is that it was conducted in one college at one university, yet importantly; students from a diverse mix of academic programs comprised the sample. As soft skills become increasingly important to career success across industries, additional research should be undertaken. Specifically, the role of attitude merits further investigation, as findings on the variable in the present study were inconsistent with previous research. This research is also limited to four independent variables. Additional variables that may promote or hinder soft skills development in the educational setting should be considered and investigated.

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Conflict of Interest

Authors declare no conflict of interest.

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