مجلة جامعة جازان للعلوم الإنسانية
Jazan University Journal of Human Sciences (JUJHS)

Enhancing Technical Skills in Students through Transformational Instructors-Leadership: Insights from Technical and Vocational Training Colleges

Omaymah Abdulwahab Radwan
[1]Department of Educational Sciences, College of Arts and Humanities, Jazan University, Kingdom of Saudi Arabia

تعزيز مخرجات تعلم المهارات الفنية لدى الطلبة من خلال تبني نمط القيادة التحويلية في التدريس من قبل المدربين: وجهة نظر الكليات التقنية بالسعودية

أميمة عبدالوهاب رضوان
قسم العلوم التربوية، كلية الفنون والعلوم الإنسانية، جامعة جازان، المملكة العربية السعودية

DOI	RECEIVED الاستلام	Edit التعديل	ACCEPTED القبول
https://doi.org/10.37575/h/edu/22002	2024/08/19	2024/10/29	2024/10/17
NO. OF PAGES عدد الصفحات	**YEAR** سنة العدد	**VOLUME** رقم المجلد	**ISSUE** رقم العدد
12	2025	2	13

Abstract:

The study aimed to examine the correlation between implementing transformational instructor-leadership (TIL) in teaching and students' technical skills learning outcomes in Technical and Vocational Training Colleges (TVTC). It applied the quantitative design by randomly distributing questionnaires 26 items to faculty members from Saudi TVTC. The data was analysed using SPSS (V.24) based on 196 responses. It was found that a significant correlation exists between TIL and students' technical skills learning outcomes in selected TVTC. However, this correlation (r= .493**) is considered a low degree of correlation. Nevertheless, the results presented valuable insights and a comprehensive conclusion about the importance of TIL for students' technical skills in TVTC. The study recommended that TVTC implement TIL behavior in the teaching courses and training programs. Future studies were encouraged to investigate other behaviors of leadership that support faculty members to impact positively on students' skills. The findings have the potential to reflect positively on higher education, especially TVTC in terms of the importance of TIL for achieving the desired outcomes in higher education teaching. It guides leaders, policymakers, and practitioners of higher education to contribute to the TVTC as well as the enhancement of the future job market by providing the community with skilled graduates.

Keywords: Transformational Instructor-Leadership, Learning Outcomes, Students' Technical Skills, Technical and Vocational Colleges, Higher Education

الملخص:

هدفت الدراسة إلى فحص العلاقة بين تبني نمط القيادة التحويلية في التدريس للمدربين وعلاقتها بمخرجات تعلم المهارات الفنية لدى الطلبة في الكليات التقنية، أعتمد البحث المنهج الكمي وتم التوزيع بالطريقة العشوائية لاستبيانات مكونة من ٢٦ فقرة على أعضاء هيئة التدريس (المدربين) بالكليات التقنية التابعة للمؤسسة العامة للتدريب التقني والمهني بالسعودية. تم تحليل البيانات بناءً على جمع ١٩٦ استجابة مكتملة باستخدام SPSS (V.24) وقد توصلت النتائج إلى أن هناك علاقة طردية ذات دلالة إحصائية بين تبني نمط القيادة التحويلية في التدريس للمدربين ونتائج تعلم المهارات التقنية للطلبة في الكليات التقنية، و اوضحت النتائج ان العلاقة جاءت بدرجة ضعيفة (r=.493**) عند مستوى دلالة ٠,٠١، لذا قدمت النتائج رؤى مفيدة واستنتاجًا شاملاً فيما يتعلق بأهمية تبني نمط القيادة التحويلية في التدريس من اجل تحسين مخرجات المهارات الفنية للطلبة، كما أوصت الدراسة الحالية المؤسسة العامة للتدريب التقني والمهني بضرورة تطبيق نمط القيادة التحويلية في المقررات التعليمية والبرامج التدريبية. وتم تشجيع الدراسات المستقبلية على استكشاف أنماط قيادية أخرى تدعم أعضاء هيئة التدريس (المدربين) للتأثير بشكل إيجابي على مخرجات ونتائج مهارات الطلبة.

الكلمات المفتاحية: القيادة التحويلية، مخرجات التعلم، المهارات الفنية للطلبة، الكليات التقنية، التعليم العالي.

1. Introduction and Background of the Study

Leadership is an essential dynamic power that motivates, coordinates and drives the organization in reaching its goals. It is an important function of management is to enhance productivity and achieve the desired outcomes (Karsono, Suraji, & Sastrodiharjo, 2022). It is considered as a remarkable tool to transform any organization, especially higher education institutions (Beytekin, 2014; Smita, 2023). Leadership in higher education institutions is an essential component for achieving the desired outcomes of learning, effective teaching, and creative research (Jones & Harvey, 2017). Recently, studies relating to higher education have accorded more attention to the concept of instructor-leadership (Balwant, 2016; Balwant, Stephan, & Birdi, 2014). The concept of instructor-leadership refers to a method when the instructor influences the students in order to structure, guide and provide assistance in building relationship and activities (Yukl, 2013). Instructors who practice instructor-leadership are focused on making the desired improvement in students' knowledge, their critical thinking, and personal skills. They are focused on helping students to reach the desired goals (Yukl, 2013). The courses and classrooms in higher education institutions are considered a quasi-organization where the instructors in the class are considered as leaders and the students their followers. Accordingly, the instructors as leaders in the classroom can employ effective behaviors or styles that can impact their followers (students) positively (Smita, 2023). Among several behaviors of leadership, Balwant (2016) emphasized that the essential driver of instructor-leadership study is the theory of transformational leadership by Bass (1985).

Research regarding instructor-leadership started to gain more attention due to the rising reputation of transformational leadership theory (Balwant *et al.,* 2014). Transformational leadership behavior is one of the effective leaderships behaviors that reflects positively on the outcomes of any organization (Lawrason, Shaw, Turnnidge, & Côté, 2023).

Transformational leadership behavior is one of the operative leaderships behaviors in the educational environment. Higher education institutions are considered as one of the educational environments that have proven the effectiveness of employing a transformational leadership style in making a positive difference in the setting (Balwant, 2016). Lately, the concept of transformational instructor-leadership is gaining more consideration in the research. According to Beytekin (2014); Radwan, Razak, and Ghavifekr (2019), previous studies have highlighted that transformational leadership theory can be valuable for course teaching in the context of higher education. Furthermore, Balwant (2016) pointed out that transformational instructor leadership is associated with students' cognitive and affective learning, motivation, satisfaction, and academic performance

The results of meta-analysis conducted by Balwant (2016) pointed out that transformational instructor-leadership was positively correlated with student outcomes in higher education. This indicates that transformational leadership theory is remarkably effective in higher education course teaching. However, only a few studies have examined transformational instructor leadership in higher education and its relationship to students' outcomes (Balwant, 2016; Balwant, Birdi, Stephan, & Topakas, 2019; Harvey *et al.*, 2003; Lawrason et al., 2023; Pounder, 2008; Smita, 2023; Walumbwa *et al.,* 2004). Currently, there is a lack of studies regarding the relationship between implementing transformational instructor leadership in teaching and students learning outcomes in the context of Saudi higher education, especially in TVTC colleges. Although most of the previous studies were focused on different learning outcomes such as affective outcomes, cognitive outcomes, academic performance, and other outcomes, nevertheless, there is still a lack of researches regarding technical skills learning outcomes.

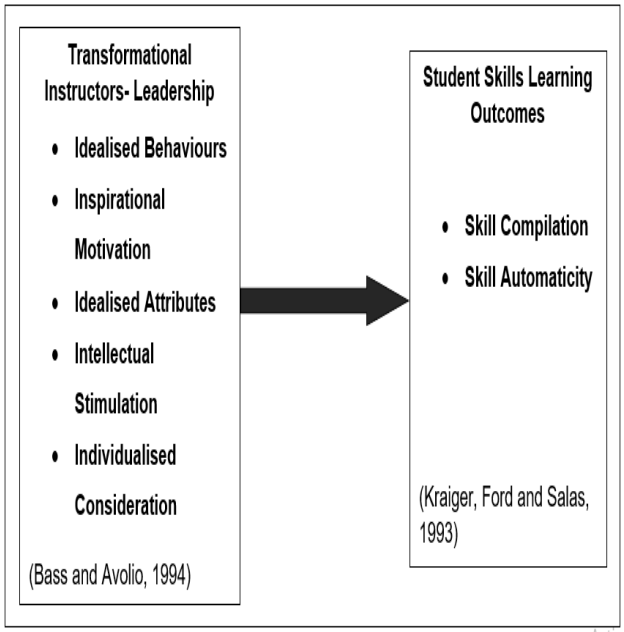

Figure 1. Conceptual Framework of the Study

Based on the conceptual framework above, the transformational instructors-leadership has five different characteristics of leadership including idealized behaviors, inspirational motivation, idealized attributes, intellectual stimulation, and individualized consideration (Bass & Avolio, 1994; Yukl, 2013). As stated in the previous studies, transformational instructor-leadership can impact students learning outcomes. Thus, the current study has proposed skills learning outcomes as one of the learning outcomes affected and having a relationship with transformational instructor-leadership. The skills learning outcomes in the current study will be focused on two factors, namely, skill compilation and skill automaticity (Kraiger, Ford & Salas, 1993). Therefore, the objective of the current study was to examine the relationship between implementing transformational instructors- leadership in teaching and students' technical skills learning outcomes in TVTC colleges as one of Saudi higher education institutions.

Furthermore, the relationships between implementing transformational instructors-leadership in teaching and student technical skills learning outcomes in TVTC colleges in Saudi Arabia were previously not well investigated. There is still a lack of information regarding technical skills of TVTC students in the official database in Saudi Arabia which is Saudi Digital Library. Al-Andas (2020) indicated that there is a limitation and weakness in the technical and vocational learning outcomes of students in technical colleges in Saudi Arabia, and this weakness may be due to the lack of compatibility between the study plans and the quality of training or even the actual needs of the labor market. Additionally, the Riyadh Economic Forum (REF) mentioned in (2019) that there are challenges facing graduates of technical and vocational education in the Kingdom. However, the impact of technical colleges in the Kingdom today has improved significantly as the training sector in the Kingdom is going through developmental stages aimed at raising the quality of professional and technical learning outcomes in line with the requirements of the labor market and achieving the Kingdom's Vision 2030 (Kingdom's Vision Document, 2030). The cooperation of technical colleges and their efforts to achieve the vision, they have undertaken a number of initiatives, including initiatives related to the thriving economy and supporting, encouraging and guiding students in improving and enhancing their technical skills.

Based on that, there is a gap in the previous literature especially in the context of technical colleges in Saudi Arabia. Accordingly, the conceptual framework was created based on the gap in the past literature as shown in Figure 1 below.

They have faith in reaching the desired goals. They take a stand on controversial issues.

Intellectual Stimulation: This leadership behavior stimulates followers. Thus, leaders investigate various opinions when solving problems. They inspire followers to look at the problem from several angles. They recommend new techniques for achieving tasks. They encourage the reconsideration of new ideas that have not been questioned before.

Individualised Consideration: This leadership behavior coaches and develops followers. They spend their time teaching and coaching followers. They consider followers as people who have unique abilities, needs, and ambitions compared to others. They support followers to improve their strength and self-development. They listen respectfully and attentively to followers' concerns.

Idealised Attributes: This leadership behavior has faith in the followers. They trust and respect followers. They make followers show respect to them by behaving perfectly. They show a sense of

competency, power, and authority. They make sacrifices for the benefit of followers.

Transformational leadership theory drives a favourable and positive change in the followers (Bass & Avolio, 1994; Lawrason et al., 2023; Northouse, 2016; Smita, 2023; Odumeru & Ogbonna, 2013). This kind of leadership helps to transform the individual and organisation. It helps to change individuals' heart and mind, improve their awareness and vision. It allows the behavior to be related to the values, principles, and beliefs. It increases the performance of the followers thus leading to permanent changes.

Accordingly, earlier studies have indicated that applying transformational behavior in instructor-leadership in higher education teaching will lead to desired outcomes (Balwant, 2016; Balwant *et al.,* 2019; Harvey *et al.,* 2003; Lawrason et al., 2023; Pounder, 2008; Smita, 2023; Walumbwa *et al.,* 2004). Besides, earlier studies highlighted that instructors who show idealized influence, individualized consideration, intellectual stimulation, and inspirational motivation can positively impact student learning outcomes (Bolkan & Goodboy, 2009; Harrison, 2011).

To achieve this objective, null and alternative hypotheses were formulated as follows:

H_{01}: There is no significant correlation between implementing transformational instructors-leadership in teaching and students' technical skills learning outcomes in technical and vocational colleges.

H_1: There is a significant correlation between implementing transformational instructors-leadership in teaching and students' technical skills learning outcomes in technical and vocational colleges.

1. Theoretical Foundation

1.1. Transformational Instructor-Leadership

Transformational leadership was developed by Burns (1978) also known as relationship theory which focuses on the relationship between leaders and followers. Leaders who practice transformational behaviors are described as highly enthusiastic, empowering, collaborative, visionary, and creative (Northouse, 2016). There is a positive effectiveness of applying transformational behaviors on the outcomes of any organization (Lawrason et al., 2023). Bass (1985) expanded Burn's theory and pointed out that leaders display several behaviours that are correlated with particular skills. These various behaviours refer to five transformational skills namely, idealised behaviours, inspirational motivation, idealised attributes, intellectual stimulation, individualised consideration (Bass & Avolio, 1994; Yukl, 2013).

Leaders show different skills based on behaviour as follows.

Idealised Behaviour: This leadership behavior exercises more care on the follower's beliefs and values Through this type of behavior the leaders are concerned with ethical consequences of a decision. They encourage followers to trust each other and have a strong sense of purpose. They are supporters of new opportunities.

Inspirational Motivation: This leadership behavior motivates its followers. Leaders talk about the future enthusiastically, and what needs to be accomplished.

Therefore, the transformational instructor-leadership is an effective type of leadership that leads to the desired outcomes of higher education context.

1.2. Students' Technical Skills Learning Outcomes in Technical and Vocational colleges

TVTC colleges are considered important institutions of higher education that are responsible for the employability of graduate students. Thus, these institutions should pay more attention to the students' learning whether or not the subjects taught to meet the expectations of the workplace. (Gabbard, 2017; Kalleburg & Dunn, 2015). Developing learning outcomes in higher education institutions date back to several factors including academic leaders and effective faculty members. Gabbard (2017) pointed out that the successful communication of learning outcomes between students and faculty members is one of the best approaches that can improve learning outcomes in higher education. The involvement of faculty members (instructors) in analysing, forming, and integration of students learning leads to effective strategies to gauge learning outcomes (Smita, 2023; Wang & Hurley, 2012).

Hence, faculty members who adopt transformational instructor-leadership behaviours in higher education teaching will enhance the outcomes of students learning (Balwant *et al.,* 2019; Harrison, 2011; Smita, 2023). Indeed, technical skill outcomes, being one of the important learning outcomes, should be given more consideration in higher education, especially in technical and vocational training colleges. TVTC colleges are focused more on students' technical skills and preparing them for the future job market. However, there are few studies regarding the impact of transformational instructor-leadership on students' skill learning outcomes in higher education. Therefore, the focus of this present study will be technical skills with an important outcome for graduate students.

The instructor-leadership defined by Balwant (2016) is "a process whereby instructors exert intentional influence over students to guide, structure and facilitate activities and relationship" (p.21). This indicates that the instructors can lead their students in the classroom by mentoring them, providing the appropriate guidance, and classroom teaching. Smita (2023) pointed out that practicing transformational leadership in higher education teaching has many positive outcomes. It is positively associated with the performance and students' learning in the classroom. It also related to the overall development of the student in higher education institutions.

Therefore, transformational instructors-leadership in higher education teaching is focused on students by offering them moral support, and displaying admiration for their work (Harrison, 2011; Smita, 2023). The transformational instructors establish a respectful manner for communication with students, show a willingness to change, and create a classroom structure that helps to develop decision-making and delegation skills. Mulford and Silins (2003) stated that transformational instructors work towards communicating priorities and the objectives of schools to students by offering a sense of purpose and, in particular, with high opportunities for students to be innovative. According to Balwant *et al.* (2019), most of the earlier studies regarding instructor-leadership in higher education examined the effectiveness of transformational leadership for teaching practice. The transformational leaders refer to leaders who have the ability to stimulate followers logically, communicate the future vision with followers and give more consideration to the differences between followers (Bass, 1985). Based on this meaning of transformational leaders, Balwant *et al.* (2019) adopted this definition to the context of higher education and then define the transformational instructor-leader as a person who can guide students to learn objectives, stimulate them intellectually, and give more consideration to the differences among them.

Instructors also can influence a number of outcomes such as extra effort from students, success in a classroom setting, and improvement in students' satisfaction with their instructors. Instructors who employ transformational leadership help students to increase their learning outcomes, that because students perceive their education as personalized by the individual consideration of every student (Waldeck, 2007). When students are certain that their education is personalized, they report better learning outcomes. This refers to that instructor who applies transformational leadership in the teaching emphasis on individualized consideration in which students are treated according to their needs and skills.

A similar study was conducted by Pounder (2008) to examine instructor leadership in higher education setting and found positive correlations between instructor transformational leadership behaviors, an increase in student satisfaction, and perceptions of instructor efficiency. Additionally, Hoehl (2008) conducted a study to examine the relationship between transformational instructor leadership behavior and students' outcomes and found that transformational behaviors are significant predictors of student outcomes. The findings from the study by Bolkan and Goodboy (2009) revealed that there is a strong association between instructor charisma, intellectual stimulation, inspirational motivation and students' learning outcomes. Besides, the results of meta – analysis conducted by Balwant (2016) indicated that transformational instructor-leadership is positively associated with student outcomes in the

context of higher education. It also confirmed that transformational instructor-leadership is related to students' academic performance and their engagement in higher education. Smita (2023) concluded that applying transformational leadership in higher education teaching leads to positive outcomes of students' learning. It reflects on students' performance and their learning in the classroom.

Several theories and instruments were developed to measure students learning outcomes. Kraiger *et al.* (1993) developed the model of learning outcomes named *Classification Scheme of Learning Outcomes*. It was based on three theories, covering cognitive, skill-based, and affective theories of learning outcomes. However, this current study will only focus on skills learning outcomes due to lack of research carried out on the outcomes in the context of higher education. Therefore, the second category (skill learning outcome) of *Classification Scheme of Learning Outcome* for Kraiger *et al.* (1993) will be adopted in this study. The skill learning outcome of Kraiger et al.'s model includes skill compilation and skill automaticity measures. This outcome discusses developing the motor and technical skills of the individual. The individuals in skill learning outcomes start to reproduce the trained actions by compilation. Though the individuals' performance here has fewer mistakes, they are more flexible and well mannered. They have the required ability to distinguish an appropriate condition for employing their skills effectively (Kraiger *et al.,* 1993).

1.3.Transformational Instructor- Leadership in Teaching and Students' Technical Skills Learning Outcomes

Earlier studies have highlighted that implementing a transformational leadership behavior in teaching is a valuable strategy because of its beneficial effects for instruction and students learning outcomes (Balwant *et al.*, 2019; Balwant, 2016; Bolkan & Goodboy, 2009; Griffith, 2004; Harrison, 2011; Harvey *et al.,* 2003; Hoehl, 2008; Goodboy, Martin, & Bolkan, 2009; Pounder, 2008; Smita, 2023; Walumbwa *et al.,* 2004). Thus, transformational leadership is supportive of the instructors in an educational setting. Harvey *et al.* (2003) conducted a study to analyze the impact of instructor transformational leadership on students' outcomes and found that instructor transformational leadership influences students' learning outcomes. When instructors apply transformational leadership in their teaching, they can positively impact student 's perceptions of the learning experience and their behaviors (Harvey *et al.,* 2003; Pounder, 2008; Smita, 2023).

2.1.1 Demographic Information of Respondents

Descriptive statistics via SPSS were conducted to analyze the demographic information of the respondents. Table1 bellow shows the demographic information of the respondents.

Table 1: Demographic information of respondents

Items		N	%
Gender	Male	73	37.2
	Female	123	62.8
Age	20-30	49	25.0
	31-40	84	42.9
	41- 50	50	25.5
	Over 50	13	6.6
Academic Qualification	Bachelor	25	12.7
	Master	115	58.7
	PHD	56	28.6
Years of Working Experience	Less than 5	67	34.2
	From 6-10	68	34.7
	From 11-15	27	13.8
	Over 15	34	17.3
Total		196	100.0

The categories of the demographic information above were focused on the respondents' age, gender, academic qualification, and years of working experience. These categories are considered minimum information about the participants which allows the researcher to know the characteristics of the respondents. The respondents were faculty members (professors and lectures) from TVTC colleges. According to the findings in Table1, female respondents of faculty members were more than male. The age of most of the respondents was between 31-40 years old with the majority of them holding a master's degree. Lastly, most of the respondents possess more than 5 years working experience.

2. Methodology

The current study was conducted using the quantitative research methodology which focused on the correlation design by applying a survey questionnaire. Further details regarding the population, sampling technique, instrumentation, validity, and reliability will be included in the following sections.

2.1 Population and Sampling

The population comprises of faculty members who are working in TVTC collegesin the Jazan Province, which are located in the southern region of Saudi Arabia. The total population of these selected technical and vocational colleges is about 397 faculty members including lecturers and professors (Saudi Ministry of Education, 2023). The data was collected based on a random sampling technique. The minimum sample size for a population of 397 is about 196 participants. The sample size collected is based on the table as proposed by Krejcie and Morgan (1970) who pointed out that if the population is equal to 400, the minimum sample size must be 196. Accordingly, since the population for the current study is closed to 400 faculty members, therefore, the minimum sample size of the current study should not be less than 196 responses (as quoted in Chua 2016). Based on this guideline, more than 196 responses were gathered by simple random sampling technique. This method allows each individual in the targeted population to participate as suggested by Creswell and Creswell (2018). More details regarding sampling and demographic information are presented in Table 1.

1.1. Instrumentation

A questionnaire was applied which was divided into three main parts, i.e., demographic information, transformational instructor-leadership, and students' technical skills learning outcomes. The demographic information includes gender, age, qualification, and working experience. The transformational instructors-leadership section was measured by the Multifactor Leadership Questionnaire (MLQ) (Bass & Avolio, 2004) which focused on 16 items (see Table 2). The section on students' skills learning outcomes was adapted from the *Classification Scheme of Learning Outcomes* by Kraiger *et al.* (1993) which focused on the skills outcomes with 10 items (see Table 2).

The respondents' perceptions were evaluated based on a 5-point Likert. The respondents were asked to select one answer for each item based on 1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree, and 5= Strongly Agree. Generally, the current questionnaire applied in the study contained 26 items. The validity and reliability of the questionnaire will be included in the following sections.

٢.3 Validity and Reliability

Validity

Face validating was employed by four experts in educational leadership who have relevant experience in the related study. The convergent validity was also tested which describes the correlation between constructs of the scale. It was tested based on the value of the Average Variance Extracted (AVE). The AVE value of 0.5 and higher indicated a high convergent validity as suggested by Hair *et al.* (2017). Table 2 below shows the value of convergent validity which indicates the acceptable value.

Reliability

Testing reliability refers to testing the internal consistency of the scale. The evaluation of the reliability covers the testing of the values of Cronbach's Alpha and Composite Reliability (CR). The acceptable values for Cronbach's Alpha and Composite Reliability (CR) should range between 0.70 and 0.95 (Hair *et al.*, 2017; Pallant, 2016).

Table 2: The validity and reliability

Constructs			Cronbach's Alpha (>0.7)	(Composite Reliability (CR (>0.7)	Convergent Validity (AVE)
Transformational Instruct	1	goes beyond self-interest for the good of the group	.954	0.955	0.532

Constructs			Cronbach's Alpha (>0.7)	Composite Reliability (CR (>0.7)	Convergent Validity (AVE)
	2	expresses in simple words what should individual do	.954		
	3	helps individuals find meaning in their works	.954		
	4	considers the ethical consequences of decisions	.954		
	5	enables individuals to think about old problems in new ways	.954		
	6	provides individuals with new ways of looking at mysterious things	.954		
	7	talks optimistically about the future	.954		
	8	remembers critical assumptions to questions whether they are appropriate	.955		
	9	gives personal attention to indivi duals who seem rejected	.954		
	10	makes clear what one can expect to receive when performance goals are achieved	.953		
	11	tells individuals what to do if they want to be rewarded	.953		
	12	provides rewards when the individual reaches the desired goals	.954		
	13	keeps track of all mistakes	.954		
	14	waits for things to go wrong before taking action	.954		
	15	does not try to change anything as long as things are working	.954		
	16	tells individuals about the standards that have to be followed in carrying out their tasks	.958		
Students Skill Outcomes (SSO)	17	their compilation skills	**.954**		
	18	Their proceduralization skills	.954		
	19	their composition skills	.954		
	20	their automaticity skills	.954		
	21	their personal skills	.954		
	22	their professional skills	.954		
	23	their creative skills	.954		
	24	their technical skills	.955		
	25	their problem-solving skills	.954		
	26	their communication skills	.953		

Table 2 exemplifies the validity and reliability of the scale. According to the discussion above and values of the Table 2, all the values were within the acceptable range. Therefore, the findings

revealed that the instrument is valid and reliable which can be employed for gathering data.

4. Findings and Data Analysis

After testing the validity and the reliability of the scale using pilot testing, the actual study was conducted. The data was analyzed after collecting 196 clear responses from the targeted population. The data was analyzed using the Statistical Package for the Social Sciences (SPSS) software program version 24. The following sections include more details regarding the findings of the present study.

4.1 Hypothesis testing

Null and alternative hypotheses were tested to examine the correlation between implementing transformational instructors-leadership in teaching and students' technical skills learning outcomes in TVTC colleges. The Pearson correlation coefficient (r) is the most suitable measure for testing the correlation between variables. Table 3 below shows the results of the Pearson correlation coefficient (r).

Table 3: The correlation results between variables

Correlations			
		TIL	**SSO**
TIL	Pearson Correlation	1	.493**
	Sig. (2-tailed)		.000
	N	196	196
SSO	Pearson Correlation	.493**	1
	Sig. (2-tailed)	.000	
	N	196	196

**. Correlation is significant at the 0.01 level (2-tailed).

Key: TIL= transformational instructors- leadership; SSO= student skills outcomes

It appears from the results of the table 3 above that there is a statistically significant correlation between the variables. The Pearson correlation coefficient (r) is .493** which is also significant (.000). The findings indicated that there is a statistically significant correlation between transformational instructors-leadership and students' skills learning outcomes in the selected technical and vocational colleges. However, this correlation (r= .493**) is considered a low degree of correlation. According to Pallant (2016), the correlation coefficient (r) that ranges between .25 to .50 indicates the low degree of correlation between variables. Based on this finding, the null hypothesis was rejected but instead, the alternative was accepted. Therefore, there is a significant correlation between implementing transformational instructors-leadership in teaching and students' technical skills learning outcomes in the selected Saudi technical and vocational colleges.

5. Discussion and Contributions

This present study aims to examine the correlation between implementing transformational instructors- leadership in teaching and students' technical skills learning outcomes in the selected technical and vocational training colleges. The findings indicated that although there is a low degree of correlation between variables, nevertheless, there is a significant correlation between implementing transformational instructors-leadership and students' technical skills learning outcomes in the selected technical and vocational training colleges. This finding is supported by previous findings including the studies conducted by Balwant *et al.* (2019); Balwant (2016); Bolkan and Goodboy (2009); Griffith (2004); Harrison (2011); Harvey *et al.* (2003); Hoehl (2008); Goodboy *et al.* (2009); Pounder (2008); Smita (2023); and Walumbwa *et al.* (2004). These studies highlighted that there is a relationship between transformational instructors-leadership and students' learning outcomes. Therefore, the current finding is in tandem with the previous findings in terms of the correlation between transformational instructors-leadership and learning outcomes.

The current findings are generated from the context of Saudi technical and vocational training colleges, which are considered as a contribution for technical and vocational colleges in terms of the importance of employing transformational behaviors in teaching and training programs. There is a scarcity of studies on this issue in the context of technical and vocational training colleges. Therefore, the current findings will contribute to the body of knowledge regarding transformational leadership, instructor-leadership, technical skill learning outcomes, technical and vocational

training colleges, Saudi technical and vocational colleges and higher education institutions in general. This finding has the potential to reflect positively on the academic leaders, faculty members and students at higher education institutions. Faculty members must be aware of the behavior of leadership that they should possess to enhance students' learning outcomes. Thus, this finding will pave the direction for academic leaders and faculty members not only to benefit the higher education institution but also to the technical and vocational training colleges, as this study aids in clarifying the specific behavior of leadership that leads to the desired outcomes.

6. Conclusion

The findings indicated that there is a significant correlation between implementing transformational instructors- leadership in teaching and students' technical skills learning outcomes in the technical and vocational training colleges. This conclusion implies that transformational instructors-leadership has a positive and valuable effect on the context of technical and vocational training colleges. This conclusion is supported by the previous conclusion stated by Smita (2023), Balwant (2016) and Balwant et al. (2019) who pointed out that transformational instructors-leadership is associated with students' learning outcomes (e.g. skills, affective, and cognitive learning). Similarly, it is associated with students' motivation, satisfaction, and academic performance (Smita, 2023). This is clear evidence that transformational instructors-leadership is a useful technique that can be applied in higher education teaching and leads to positive and desirable outcomes.

7. Implications and Recommendations

Higher education institutions should give more consideration to the impact of transformational leadership behaviors on the technical skill outcomes of graduate students. To have qualified graduate students with the required skills, it is recommended for higher education leaders to train their faculty members and instructors to be effective transformational leaders. The skills and behaviors of transformational leadership must be considered in tandem with the development and executive plans regarding faculty members and learning outcomes. Academic leaders, stakeholders and practitioners in higher education must encourage technical and vocational colleges to implement transformational instructors-leadership behavior in teaching and training programs effectively. The instructors in higher education teaching are acting like leaders and students like followers. Hence, the instructors may apply leadership styles and behaviors in the classroom's communications, mentoring, meetings, and teaching to achieve the objectives and required outcomes. Although there are several behaviors and styles of leadership that can be used by the instructors in higher education teaching, transformational leadership is considered the main driver of instructor- leadership as mentioned by Balwant (2016) and Smita (2023). Also, several studies; including the current study, indicated that transformational instructors-leadership is effective in higher education teaching and leads to desirable outcomes. This behavior of leadership refers to the new leadership that is positively related and relevant to teaching in higher education.

To sum up, future studies are recommended to investigate more about other behaviors of instructor's leadership and how it impacts students' outcomes. Furthermore, future studies are encouraged to examine whether if the gender of transformational instructors' leaders have a different effect on students' learning outcomes. Indeed, the current study is conducted in the context of technical and vocational colleges; thus, other learning outcomes must likewise examine the other contexts of higher education institutions.

References

Al-Andas, Saleh. (2020). The suitability of technical and vocational education outputs to the needs of the Saudi labor market from the perspective of businessmen. Journal of the College of Education, Vol. 17. No. 93. Vol. 2 pp.350-381. https://journals.ekb.eg/article_129126.html

Balwant, P. T., Birdi, K., Stephan, U., & Topakas, A. (2019), "Transformational instructor-leadership and academic performance: A moderated mediation

model of student engagement and structural distance", *Journal of Further and Higher Education*, 43 (7), 884-900.

Balwant, P.T., Stephan, U., & Birdi, K. (2014), "Practice what you preach: Instructors as transformational leaders in higher education classrooms", In *Academy of Management Proceedings*, 2014 (1). Briarcliff Manor, NY 10510: Academy of Management.

Bass, B. M. (1985), *Leadership and Performance Beyond Expectations*, Free Press, New York, NY.

Beytekin, O. F. (2014), "Transformational leadership in higher education", Arslan, H. (Ed.), *Multidisciplinary perspectives on education*, Georgeta Raţă, Ercan Kocayörük, 339- 348.

Bolkan, S., & Goodboy, A. (2009), "Transformational leadership in the classroom: Fostering student learning, student participation, and teacher credibility", *Journal of Instructional Psychology*, 36 (4), 296-306.

Chua, Y. P. (2016), *Mastering Research Methods*, McGraw-Hill Education, Shah Alam, Selangor, Malaysia.

Creswell, J. W., & Creswell, J. D. (2018), *Research Design: Qualitative, Quantitative, And Mixed Methods Approaches* (5th ed.), SAGE Publications, Thousand Oaks, CA.

Gabbard, B. (2017), "Student Learning Outcomes: Communication among a State College Faculty and Students", Unpublished doctoral dissertation, Northcentral University, Prescott Valley, Arizona.

Goodboy, A. K., Martin, M. M., & Bolkan, S. (2009), "The development and validation of the student communication satisfaction scale", *Communication Education*, 58 (3), 372-396.

Hair Jr, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2017), *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM*), Sage Publications, Thousand Oakes, CA.

Harrison, J. L. (2011), "Instructor transformational leadership and student outcomes", *Emerging Leadership Journeys*, 4 (1), 82-136.

Harvey, S., Royal, M., & Stout, D. (2003), "Instructor's transformational leadership: University student attitude and ratings", *Psychological Reports*, 92, (2), 395-402.

Hoehl, S. (2008), "The relationship between transformational leadership and student educational outcomes as moderated by verbal and nonverbal immediacy", Unpublished doctoral dissertation, Regent University, Virginia Beach, VA.

Jones, S., & Harvey, M. (2017), "A distributed leadership change process model for higher education", *Journal of Higher Education Policy and Management*, 39 (2), 126-139.

Kalleburg, A.L., & Dunn, M. (2015), "Institutional determinants of labor market outcomes for community college students in North Carolina", *Community College Review*, 43 (3), 224-244.

Karsono, B., Suraji, R., & Sastrodiharjo, I. (2022). The Influence of Leadership Spirituality to Improving the Quality of Higher Education in Indonesia. *International Journal of Social Sciences and Humanities Invention*, *9*(01), 6832-6841.

Kraiger, K., Ford, J. K., & Salas, E. (1993), "Application of cognitive, skill-based, and affective theories of learning outcomes to new methods of training evaluation", *Journal of Applied Psychology*, 78 (2), 311-328.

Krejcie, R. V., & Morgan, D. W. (1970), "Determining sample size for research activities", *Educational and*

Psychological Measurement, 30 (3), 607-610.

Lawrason, S. V., Shaw, R. B., Turnnidge, J., & Côté, J. (2023). Characteristics of transformational leadership development programs: A scoping review. *Evaluation and Program Planning*, 102354.

Mulford, B., & Silins, H. (2003), "Leadership for organisational learning and improved student outcomes—What do we know?", *Cambridge Journal of Education*, 33 (2), 175-195.

Northouse, P. G. (2016), *Leadership: Theory and Pactice,* (7th ed.), SAGE Publications, Los Angeles.

Pallant, J. (2016), *SPSS Survival Manual: A Step by Step Guide To Data Analysis Using SPSS Program,* (6th ed.), McGraw-Hill Education, London, UK.

Pounder, J. S. (2008), "Transformational classroom leadership: A novel approach to evaluating classroom performance", *Assessment & Evaluation in Higher Education*, 33 (3), 233-243.

Radwan, O., Razak, A. Z. A., & Ghavifekr, S. (2019), "The mediating effect of organisational culture on academic leadership skills and students'skill-based learning outcomes in Saudi higher education. *Malaysian Online Journal of Educational Management*, 8 (1), 39-57.

Riyadh Economic Forum. (2019). Study of Future Jobs. Ninth Session**.**

Saudi Ministry of Education. (2023), "Higher education", available at: https://www.moe.gov.sa/en/Pages/default.aspx (accessed 1 January 2023)

Saudi Digital Library. (2023), "Databases", available at: https://sdl.edu.sa/SDLPortal/ar/Publishers.aspx (accessed 19 January 2023).

Saudi Arabia Vision 2023 Document. available at: https://www.vision2030.gov.sa/media/5ptbkbxn/saudi_vision2030_ar.pdf

Smita, S. T. (2023). *Teaching-learning effect of transformational leadership in the ELT classroom: An exploratory study* (Doctoral dissertation, Brac University).

Waldeck, J. H. (2007), "Answering the question: Student perceptions of personalized education and the construct's relationship to learning outcomes", Communication Education, 56 (4), 409-432.

Walumbwa, F. O., Wu, C., & Ojode, L.A. (2004), "Gender and instructional outcomes: The mediating role of leadership style", Journal of Management Development, 23 (2), 124-140.

Wang, X., & Hurley, S. (2012), "Assessment as a scholarly activity? Faculty perceptions of and willingness to engage in student learning assessment", *The Journal of General Education*, 61 (1), 1-15.