The Relationship between Lecturers' Teaching Styles and Students' Motivation

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***Abstract*—This study seeks to examine the relationship between lecturers' teaching styles and the level of motivation displayed by students in medical departments at Cihan University-Erbil. It aimed to analyze lecturers' various teaching styles, assess students' motivation, and examine their relationships. The researchers modified the Grasha-Riechmann (2002) survey, which included 20 statements divided into five styles: expert, formal authority, demonstrator, facilitator, and delegator. The survey was distributed to 25 lecturers and 247 medical students from diverse medical departments. Each style was classed based on its mean score, standard deviation, minimum score, and highest score. Students' motivation levels were tested using a t-test. In addition, ten random classroom observations were carried out. The findings demonstrated that lecturers' teaching styles varied according to their field, student cohort size, and educational environment. The most common style was expert (teacher-centered), followed by facilitator (student-centered), demonstrator (teacher-student), formal authority (teacher-centered), and delegator (student-centered). The implementation of various teaching styles by lecturers enhanced student motivation, indicating a correlation between teaching styles and student motivation levels.**

***Keywords*—Teaching styles, Students' Motivation, Self-Determination Theory, Intrinsic motivation, Extrinsic Motivation.**

I. Introduction

To be an exceptional lecturer, one needs to have a combination of intelligence, expertise, good judgment, and hard work to overcome the challenges in the classroom (Kardia and Wright, 2004). Sudjana (2010) highlights that teaching involves guiding students in their educational pursuits and supervising and organizing the learning environment to facilitate their advancement.

Teachers are responsible for regulating classroom discipline and developing effective learning methods. To attain optimal learning outcomes, it is imperative for teachers to collaborate with their students. Teachers are required to provide clear and methodical explanations of the topic, while students are expected to attentively engage with the materials (Mojavezi and Tamiz, 2012). The teaching style employed significantly influences the level of success achieved by learners (Knowles, 1980). Teachers must use suitable teaching styles that align with the student's proficiency level and cater to the requirements of the lesson to facilitate effective teaching (Ur Rahim Shah and Afzal, 2021). Teaching styles, according to Grasha (1996), refer to the distinct patterns of belief, knowledge, performance, and behavior that teachers demonstrate while teaching. The study (Ahmed, 2013) classified teaching styles into two primary approaches: teacher-centered and student-centered. While both styles have benefits and disadvantages, a teacher's approach will be successful if it aligns with the student's objectives, subject matter, preferences, and needs in both group and individual settings. To choose the most suitable and preferred teaching style, educators must have a comprehension of students' learning processes.

Teachers have a key role in directing and inspiring students, particularly in cultivating their curiosity (Stitt-Gohdes, 2001) and enthusiasm for acquiring new knowledge through the implementation of various instructional methods (Clark and Trafford, 1996; Bailey, 1997; Dornyei, 2001; Mahamod et al., 2009). As stated by Alderfer in Nashar (2004), learning motivation refers to the combination of internal and external factors that compel an individual to take action to attain specific objectives, leading to anticipated modifications in student conduct. A study conducted by Idhaufi and Ashari (2017) proposes that employing diverse teaching styles may reduce student boredom and enhance their motivation to learn. Therefore, if students experience enjoyment and

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motivation in their learning, they are more likely to have a desire to accept information from the teacher. Furthermore, as stated by Çelen et al. (2010), students acquire knowledge faster when they possess a sincere curiosity in comprehending the subject matter.

As to the definition provided by Al-Tamimi and Shuib (2009), a student's motivation in learning includes both the level of work they put in and the emotional aspect of their desire and attitude toward learning activities. Primarily, motivation drives their inclination to take action and sparks enthusiasm. To achieve one's dreams, it is necessary to possess considerable fortitude. Motivated students who consistently engage in their learning exhibit several key attributes: persistence, adaptability, thorough task completion, effective problem-solving, resilience, and a strong commitment to acquiring knowledge (Richter et al., 2013).

Mooi and Mohsin (2014) assert that teachers have an essential role in comprehending the abilities and capabilities of their students. Nevertheless, it is customary for educators to make the assumption that all students are identical and impart classes utilizing identical methods. Educators must acknowledge students require knowledge acquisition not alone for academic pursuits, but also for their forthcoming undertakings. To accomplish this, students must experience a sense of motivation and perceive the process of learning as significant (Hrbackova and Suchankova, 2016).

Investigating the styles of teaching used by medical department professors and the factors that motivate their students could lead to better educational results and more conducive learning environments. The benefits of such research are many. As a first step toward improving performance, it is important to get an appreciation for how different teaching styles influence student motivation. This can potentially enhance academic achievement and readiness for medical practice. Medical educators can better meet the needs of their students by understanding their motivations and how they relate to their preferred learning styles. Educators can enhance student well-being and happiness by establishing a nurturing and captivating learning atmosphere. Medical education has its challenges, such as a rigorous curriculum, high stress levels, and burnout among students. However, this research may help students overcome them by identifying ways to do better in the classroom. To enhance student education in the medical department, this research may influence institutional policies and procedures by demonstrating the importance of integrating student motivation into teaching strategies. Consequently, the researchers have opted to examine this correlation within the medical departments of Cihan University-Erbil. This study aims to investigate the research questions that have been proposed, which include:

- What teaching styles are employed by the instructors in the medical departments?
- What is the motivation level of students in medical departments?
- What is the correlation between lecturers' teaching styles and students' motivation?

II. Literature Review

This section is a brief review of past research and literature on the correlation between instructors' teaching styles and students' motivation.

Prior research has investigated the relationship between teaching, learning styles, and student motivation across several academic disciplines and demographic groups. Idhaufi and Ashari (2017) established a correlation between teaching styles and the level of motivation among students. Rosalia (2017) identified a substantial and statistically significant correlation between the teaching styles of teachers and the motivation of junior high school students to excel in their academic pursuits. Atma, et al. (2021) conducted a study that specifically examined primary school students. Their findings indicated a direct relationship between the teaching style employed by instructors and the level of motivation exhibited by the students in their learning. Permatasari (2023) examined the relationship between teachers' teaching styles and the motivation of students studying natural science to learn English. In their study, Muharam et al. (2019) focused on examining how different teaching styles affect students' motivation and academic performance.

A. Teaching Style

Teachers who can inspire may be strong and emotive. Research shows that most teachers teach as they are trained. Different academics may define teaching styles differently. Peacock (2001) defines it as a person's natural way of teaching in their educational environments. Wright (1987) says it combines beliefs, attitudes, tactics, techniques, motivation, personality, and control. The teaching style appears during the lesson. Jarvis (2004) defines teaching style as how one applies their philosophy, ideas, and attitudes to teaching and learning. Daryanto (2010) found that instructors who regularly provide exercises are more effective than those who simply teach. According to Hoyt and Lee (2002), there is no teaching style that works across all subjects and goals. Their viewpoint emphasizes the need for educators to accept students' diverse needs and circumstances and adapt their teaching methods. This emphasizes the necessity for flexible teaching strategies to meet the needs of different disciplines and learning goals. However, Suparno et al. (2006) highlight the essentials of a perfect classroom. Their findings suggest teachers use a flexible, multi-featured teaching strategy. These include the ability to communicate effectively, motivate students, use learning resources effectively, and guide students throughout the learning process. These elements can help teachers create a positive learning environment that boosts student achievement.

Various teaching styles have been discovered by researchers and scholars in the literature. These teaching styles are categorized using various terms. Flanders (1970) refers to them as direct teaching style (teacher-centered) and indirect style (learner-centered). Bennett et al. (1976) classify them as formal and informal. Solomon and Kendall (1979) present them as open and traditional. Lowman (1984) describes them as intellectual excitement and interpersonal

rapport. Brown (2000) identified and analyzed modern teaching styles, which were also included in Grasha's model (1994). According to Brown (2000), teaching style refers to the way a teacher behaves to communicate or receive information from the learner. It is shaped by the instructor's beliefs and principles about teaching. In their study, Sun and Wang (2007) classified teaching styles into four categories: authoritarian, democratic, laissez-faire, and indifferent.

Previous research has shown that the learning process is greatly impacted by two different teaching styles: learner-centered and teacher-centered approaches. With teacher-centered learning, the instructor takes on a greater leading role in the classroom, concentrating mostly on providing detailed content delivery without frequently giving students the chance to participate actively in class discussions. On the other hand, whether given assignments or difficult questions, learners are encouraged to actively participate, discuss, and share their viewpoints in learner-centered training. In this situation, the teacher adopts a facilitative position, supervising and counseling pupils, giving helpful criticism, and creating an atmosphere that encourages participation from the students and active learning.

B. Grasha's Teaching Styles

Grasha's (1996) teaching model includes a wide variety of teaching styles that other instructors have embraced. Grasha and Yangarber-Hicks (2000) reported that 92% of participants agreed that the classification of teaching styles in Grasha's model was legitimate, thereby reinforcing the significance of this technique. Grasha (2002) classifies teaching styles into five categories: expert, formal authority, personal model, facilitator, and delegator. Teachers employ these techniques in the classroom.

Expert style

The expert teaching style prioritizes the delivery and dissemination of knowledge, with less emphasis placed on the needs and involvement of students. In addition, it relies on a conventional approach where the instructor has a prominent position. The instructor disregards students' experiences and other available resources, which has a negative impact on the quality of instruction. These lecturers strive to uphold their reputation among students by imparting information and competence. This strategy only emphasizes the transmission of knowledge to students to equip them with accurate information and understanding. Grasha (2002).

For instance, psychological lectures expose students to fundamental ideas in psychology, including behavior analysis, cognitive processes, and psychological diseases. It offers students a basic knowledge of mental and behavioral processes, therefore preparing them for additional study in psychology or other disciplines.

Formal authority style

The authoritarian teaching style relies on conventional methods and seeks to cultivate ingenuity and adaptability within established boundaries. Teachers offer comments on both the method and substance of student work to improve their learning. This method prioritizes the significance of related and trustworthy knowledge, and teachers uphold stringent classroom discipline. Emphasis is placed on utilizing reliable and precise course materials to mitigate the dissemination of false information Grasha (2002).

For example, to reduce risks and preserve a controlled learning environment, the teacher during surgical training sets explicit protocols and procedures, guides students' actions, and enforces adherence to safety recommendations.

Role model style/demonstrator

The method of personal modeling incorporates pertinent illustrations during instruction and takes into account students' viewpoints to inspire them. The focus is on suitable responses, customized illustrations for pupils, and the significance of firsthand observation. Students may experience feelings of inadequacy when they are unable to reach the goals and standards set by their professors Grasha (2002).

For instance, a medical lecturer could exemplify proficient communication abilities, demonstrate empathy toward patients, and display a dedication to continuous learning, thereby motivating students to imitate similar attributes in their own professional endeavors.

Facilitator teaching style

As an adaptable teacher, the lecturer encourages student experiences and involvement. Students take responsibility for their education and create a collaborative classroom. Instructors emphasize student-teacher interaction. This lecturer mentors students' projects and assignments and inspires them. This strategy helps students overcome academic challenges rather than relying solely on positive feedback Grasha (2002).

Small-group conversations or case-based learning exercises can help medical students collaborate, analyze clinical problems, and apply theoretical knowledge to real-world situations. The facilitator guides students' questions and discussions, helping them understand medical concepts and solve problems.

Delegator teaching style

A teacher's delegator style empowers learners by giving them a major role in their own education. Students are given full autonomy over their physical and mental faculties and are strongly encouraged to engage actively. This teaching style strongly highlights student accountability for their learning and creates a positive atmosphere by actively participating. By employing this method, the teacher's position becomes very adaptable, enabling students to acquire knowledge according to their own preferences and at their desired speed (Grasha, 2002). By employing a learner-centered teaching style, students can concentrate, cultivate their critical thinking abilities, and provide a conducive learning atmosphere (Hesson and Shad, 2007).

For instance, a clinical instructor may allocate medical students the responsibility of investigating and delivering case studies, entrusting them with patient care responsibilities while being supervised, or foster self-directed learning through independent study projects. By assigning students progressively higher levels of responsibility, each individual

delegating tasks fosters the growth of self-assurance, proficiency, and proactivity in their professional advancement.

C. Motivation

According to Watters and Ginns (2000), motivation is the psychological concept of behavior quality in different activities. Brophy (1998) describes motivation as a theory that explains behavior direction, intensity, amount, initiations, and persistence. Motivation drives human behavior, affecting energy and determination and steering it toward a goal. Instructional motivation is extensively discussed in the literature (Dede and Yaman, 2008).

Strong classroom motivation improves comprehension, creativity, productivity, and achievement (Vansteenkiste et al., 2005; Koestner, 1984; Dolmans, 1998; Carlo et al., 2003; Boggiano, 1993; Moulaert et al., 2004). When lecturers promote involvement, devotion, and curiosity, students grasp lecture material better, get higher grades, and are satisfied (Saeed, 2023). Al-Faris (2023) defines autonomous learning as self-directed learning. Skinner et al. (2008) examined autonomous teaching practice. These practices include offering students choices, letting them express themselves, and supporting self-learning. They found that autonomy-promoting instructional methods create a positive learning environment. They let students manage their education and make important academic choices. Students are more motivated, interested, and dedicated to their studies when they feel respected for their independence. This fosters trust, teamwork, and intrinsic motivation (IM) in teaching.

Lack of motivation causes student discontent and underachievement (Druger, 1998; Arwood, 2004). Lack of motivation can hinder academic achievement (Cavallo et al., 2003; Glynn et al., 2007). Students can excel academically with coaching and encouragement (Dalgety et al., 2003; Zusho et al., 2003). Wang and Holcombe (2010) indicate student motivation influences classroom atmosphere and academic performance. Motivated students create a classroom with energy, teamwork, and shared goals, according to their research. However, unmotivated students can generate apathy, indifference, and academic decline.

IM

The concept of IM implies that learners are compelled to learn because learning benefits them. This motivation comes from inside desires rather than outward reward. Lecturers have little impact on IM because it is largely determined by student qualities. A nurturing and compassionate learning environment encourages students to deeply engage with the subject matter, which boosts their motivation. By encouraging IM, instructors may ensure students are fully engaged in learning and committed to their goals (Sheikh and Mahmood, 2014, 827). Interactive labs where students dissect cadavers boost IM in medical medical anatomy classes. Students learn more about the human body through experimentation and collaboration (Jones and Simith, 2020). Their curiosity and passion for complex subjects drive their dedication to learning.

Extrinsic motivation (EM)

EM is the inclination to seek a reward or avoid punishment. This notion recognizes that certain behaviors are not undertaken for their intrinsic worth but rather for the advantages they provide as a means to an end. EM frequently influences learners to participate in activities such as completing homework, attaining high marks, or satisfying their teachers. Medical instructors can employ EM in their classrooms by providing praise and acknowledgment for academic accomplishments, such as a "Student of the Month" initiative or additional credit for active engagement. Instructors can foster student motivation and engagement in their studies by establishing explicit objectives and offering constructive feedback (Sheikh and Mahmood, 2014).

Self-determination theory

Self-determination theory is a prominent and important framework in the field of motivational psychology. Deci and Ryan (1985) propose that this theory offers an effective framework for comprehending the relationship between behavior and motivation. It is founded on the assumption that persons are proactive entities with an inherent tendency to develop, acquire knowledge from obstacles, and assimilate novel experiences into their self-perception. Nevertheless, this procedure needs continuous social assistance and direction. To develop self-determination, a teacher might give assistance by matching their teaching approach with the student's learning style. Moreover, the way in which students associate their learning style with the teaching style of the teacher might be linked to the challenges posed by attribution theory.

III. Methodology

This section provides an overview of the methods used in the study. The study employed a Mixed method design, incorporating both quantitative and qualitative methods, to examine and understand the different teaching styles employed by lecturers, the level of motivation among students, and the relationships between lecturers' teaching styles and students' motivation.

A. Research Design

The researchers used a mixed-methods study design to thoroughly analyze the correlation between lecturers' teaching styles and student motivation levels in medical departments. This method combines quantitative and qualitative data to create a thorough understanding of the issue being studied. Creswell and Creswell (2018) define a quantitative method as the collecting of statistical data and the use of logical reasoning to construct and evaluate theories. The researchers used questionnaires provided to both lecturers and students to collect quantifiable data on how teaching techniques affect student motivation. Researchers also collected qualitative data through observation sessions, demonstrating a genuine association between teachers' teaching approaches and student motivation levels. This qualitative component contributes to the study by offering insights into the subtleties of teacher-student interactions and classroom dynamics.

B. Participants

The study included 25 instructors and 247 undergraduate students from Cihan University-Erbil's various academic disciplines, including dentistry, pharmacy, medical microbiology, biomedical sciences, medical biochemical analysis, physiotherapy, community health nursing, medical laboratory science, and nutrition and dietetics.

Before distributing the questionnaires, the researchers requested permission from the department heads and lecturers in the medical departments participating in the study. During this step, all key stakeholders were informed about the research objectives and methodology, and ethical issues were addressed. Furthermore, before administering the questionnaires, the researchers met with the lecturers to discuss the study's purpose and the relevance of their involvement. During these interactions, the researchers provided an overview of the questionnaire's content and stressed the importance of the participant's responses in contributing to the study's results. This proactive strategy ensures data collection clarity and transparency while fostering participant cooperation and understanding. The subjects were randomly picked, and the study followed all ethical guidelines. Before data collection, all participants provided informed consent and agreed to participate voluntarily. Furthermore, all collected data were kept confidential and anonymous to protect the participants' privacy and well-being.

C. The Instruments

Three English sections comprised the distributed survey. Demographic data were collected in Section A. Grasha-Riechmann's validated inventory was used to evaluate lecturers' teaching styles in Section B of the second section. Twenty close-ended statements were categorized as expert, formal authority, demonstrator, facilitator, and delegator. They had four items in each category. Students rated their motivation on a scale of 1–5 (with options including "Strongly agree," "Agree," "Neutral," Disagree, and "Strongly disagree") in Section C. Teacher skills were closely observed for 2 weeks as part of the investigation. Different topics, lecturers' personalities, experiences, and student attendance were considered when the researchers randomly observed ten lectures at different times and in different departments. Observers recorded teachers' teaching styles, instructional explanations, and decision-making processes. The researchers also recorded teachers' classroom alertness and proactive participation. The results help scholars understand how lecturers' teaching styles affect students' motivation.

D. Data Analysis

During the quantitative phase, the data collected from the questionnaire were analyzed to generate descriptive statistics for five types of teaching styles: Expert, Formal authority, Role/demonstrator, Facilitator, and Delegator. The assessment of each style included the calculation of its mean score, standard deviation, minimum score, and maximum score. Furthermore, to know the frequency of responses about the types of teaching methods and the most dominant type used by lecturers.

To determine the level of student motivation in medical departments, the researchers used a t-test, a statistical method typically used to compare the means of two groups. The T-test calculates the difference between the two groups' means in relation to their variance. The study used a significance level (α) of 0.05, allowing for a 5% risk of incorrectly rejecting the null hypothesis. The critical value of a two-tailed T-test at $\alpha/2$, with degrees of freedom (n-1) equal to the sample size minus one, was found to be 1.968. By comparing the calculated T-value from our sample data to the critical value, the researchers decided if the observed difference in student motivation levels between different teaching styles was statistically significant. A T-value greater than the critical value indicates that the difference in motivation levels was unlikely to occur by chance alone, lending weight to the alternative hypothesis that there is a true difference in motivation levels across groups.

"A crucial part of the qualitative phase included the methodical observation of numerous classes across the medical departments." The researcher carefully documented these observations and then conducted a thorough analysis. The researcher conducted a qualitative analysis to explore the underlying elements and reasons that influence the various teaching styles used by lecturers and how these styles affect student motivation.

The qualitative analysis aimed to reveal significant insights into the correlation between teaching styles and student motivation. The researchers intended to clarify the complex nature of this link by analyzing classroom dynamics, relationships, and teaching methodologies. In addition, the qualitative phase enhanced the analysis by supplementing the quantitative data with detailed qualitative observations. This analytical approach facilitated the detection of both numerical patterns and contextual nuances, enabling a comprehensive comprehension of the intricate interaction between teaching styles and student motivation in the field of medical education.

IV. Results and Discussions

On gathering the data, the researchers utilized SPSS statistical analysis to figure out the nature of the correlation between lecturers' teaching styles and students' motivation. The lecturers' teaching styles were assessed using a scale with five subheadings representing each teaching style: Expert, Formal Authority, Role Model, Facilitator, and Delegator. The study employed a Likert scale consisting of five points to measure students' motivation. The scale included the following response options: Strongly Agree (5), Agree (4), Neutral (3), Disagree (2), and Strongly Disagree (1).

A. Lecturers' Teaching Styles

The final results of the teaching styles employed by the lecturers in medical departments in this study were determined by analyzing the data obtained from questionnaires filled out

by the lecturers, using a Likert Scale. The findings of the data analysis are shown in Table I.

The table presents data from a comprehensive survey that collected responses from 25 instructors about their teaching approaches. The Expert teaching style was the most common among the observed teaching styles, with an average rating of 4.19 and a standard deviation of 0.480. The Facilitator style (M = 4.11, SD = 0.50), Role model style (M = 4.07, SD = 0.31), Formal authority style (M = 3.70, SD = 0.38), and Delegator style (M = 3.50, SD = 0.40) followed closely in sequential sequence. These findings offer useful insights into the many teaching styles employed by instructors, which can contribute to discussions on the effectiveness of teaching, student involvement, and learning outcomes in the educational context. The results have been visually depicted to enhance comprehension of the distribution and prevalence of each teaching style among the surveyed professors (Fig. 1).

Table II depicts the results of various teaching styles, categorized by responses ranging from strongly disagree to strongly agree. Notably, a significant majority of lecturers (88.80%) expressed agreement (with an average score of 4.44) on elements X1, X5, X10, and X14, indicating a preference for employing an expert teaching style characterized by disseminating accurate information and knowledge. In addition, there was notable support for an authoritative approach, wherein the instructor assumes a central role in content delivery (items X2, X6, X11, and X16).

A subset of instructors demonstrated a preference for the demonstrator style, emphasizing hands-on instruction in the classroom (items X3, X7, X12, and X19). Conversely, others favored the facilitator style (items X4, X9, X18, and X20), prioritizing the enhancement of students' skills and fostering critical thinking and active participation.

TABLE I
CLASSIFICATION OF THE LECTURERS' TEACHING STYLES

Teaching styles	Items	N	Minimum	Maximum	Mean	SD
Expert	1-5-10-14	25	3.25	5.00	4.1900	0.48023
Formal Authority	2-6-11-16	25	2.75	4.25	3.7000	0.38188
Role/Demonstrator	3-7-12-19	25	3.50	4.75	4.0700	0.31885
Facilitator	4-9-18-20	25	3.00	5.00	4.1100	0.50042
Delegator	8-13-15-17	25	2.75	4.50	3.5000	0.40182
sECTION		25	3.55	4.55	3.9140	0.25311
Valid N (listwise)		25				

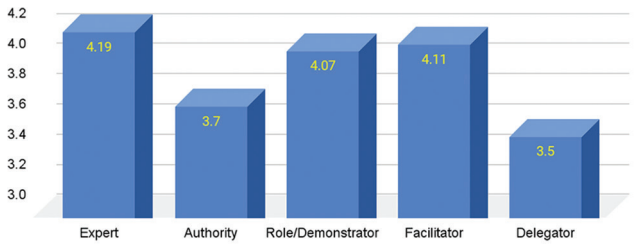

Fig. 1: Frequencies of responses to statements about expert, authority, role/demonstrator, facilitator, and delegator teaching styles.

Regarding the delegator style (items X8, X13, X15, and X17), consensus was reached among lecturers to promote a classroom environment conducive to greater student autonomy and engagement, both intellectually and physically.

The study's findings indicate that lecturers in the medical departments of Cihan University-Erbil utilize various instructional techniques, including the expert, authority, demonstrator, facilitator, and delegator styles. A wide range of teaching approaches is crucial to cater to students' diverse learning styles and preferences, thus fostering a thorough and inclusive educational experience. Nevertheless, it is important to mention that the frequency of using these teaching styles differs among lecturers. The prevailing inclination noticed is toward the expert style, characterized by a teacher-centered approach; for instance, during a pathology lecture, the lecturer, who is a specialist in the subject, presents a well-organized talk on the histological characteristics of various diseases. The educator is pivotal in transmitting knowledge, offering comprehensive explanations, and giving insights from their skill and experience. Next is the facilitator style, which employs a student-centered approach; the instructor assumes a less active position, and students are motivated to participate in the learning process actively. For example, in a medical ethics class, students might be given a case study presenting an intricate ethical challenge in clinical practice. The instructor leads a group discussion in which students actively participate by sharing their viewpoints and examining different ethical considerations. During this process, students cultivate crucial cognitive talents, ethical decision-making skills, and collaborative aptitudes, all of which are important for their prospective healthcare professions. The demonstration style involves active interaction between the teacher and the student. For instance, during a surgical skills lab session, students might observe a presentation by a seasoned surgeon on the correct methods of suturing or handling surgical instruments. Following the demonstration, students can independently practice the skills, with the teacher overseeing and providing guidance. The instructor provides comments, rectifies errors, and offers supplementary advice to ensure learners comprehend the procedures proficiently. In addition, the authoritative style, which prioritizes a teacher-centered approach, is also important, although it is not as significant. During a pharmacology lecture, the instructor may employ an authoritative approach to ensure that students obtain precise and thorough knowledge regarding drug classifications, mechanisms of action, and therapeutic applications. Interestingly, the delegator method, which encourages greater student autonomy, is used less frequently. For instance, in a course on medical research methodologies, students may be assigned the responsibility of creating and executing their own research projects with the supervision of the instructor. The instructor assumes the role of a facilitator rather than a director, enabling students to assume responsibility for their learning and decision-making processes. Students are encouraged to independently or collaboratively explore their research interests, develop research inquiries, devise study protocols, gather data, analyze findings, and make conclusions.

TABLE II
Types of Teaching Styles among Lecturers

No.	Items	SD	D	N	A	SA	M	SD	%
X1	Facts, concepts, and principles are the most important things that students should acquire.	1	2	1	12	9	4.04	1.06	80.80%
X5	What I have to say about a topic is important for students to acquire a broader perspective on the issues in the field.	1	0	4	13	7	4.00	0.91	80.00
X10	My course is designed to prepare students for future endeavors in their related fields.	0	0	1	12	12	4.44	0.58	88.80
X14	Lecturing is a significant part of how I teach each of the class sessions.	0	0	2	14	9	4.28	0.61	85.60
X2	I give students negative feedback when their performance is unsatisfactory.	6	10	7	0	2	2.28	1.10	45.60
X6	It is my responsibility to define what students must learn and how they should learn it.	0	0	2	15	8	4.24	0.60	84.80
X11	I provide very clear guidelines for how tasks should be completed in this course.	0	0	3	14	8	4.20	0.65	84.00
X16	My expectations for what I want students to do in this class are clearly defined in the syllabus.	0	1	4	12	8	4.08	0.81	81.60
X3	Activities in this class encourage students to develop their own ideas about content issues.	0	0	2	10	13	4.44	0.65	88.80
X7	I typically show students how and what to do to master the content of the course.	0	0	3	13	8	4.04	1.06	80.80
X12	Examples from my personal experiences often are used to illustrate points about the material.	0	1	8	11	5	3.80	0.82	76.00
X19	Students receive frequent verbal and/or written comments on their performance.	0	0	6	18	1	3.80	0.50	76.00
X4	My teaching goals and methods address a variety of student learning styles.	0	1	2	15	7	4.12	0.73	82.40
X9	I spend time consulting with students on how to improve their work on individual and/or group projects.	0	1	3	12	9	4.16	0.80	83.20
X18	Small group discussions are employed to help students develop their ability to think critically.	1	0	3	15	6	4.00	0.87	80.00
X20	I give students a lot of personal support and encouragement to do well in this course.	0	1	4	10	10	4.16	0.85	83.20
X8	Students typically work on course projects alone with little supervision from me.	3	8	10	4	0	2.60	0.91	52.00
X13	Developing the ability of students to think and work independently is an important goal.	0	0	2	11	12	4.40	0.65	88.00
X15	I assume the role of a resource person who is available to students whenever they need help.	1	1	7	9	7	3.80	1.04	76.00
X17	Students take responsibility for teaching part of the class sessions.	1	3	11	10	0	3.20	0.82	64.00

Note: SD=Strongly Disagree, D=Disagree, N=Neutral, A=Agree, SA=Strongly Agree, M=Mean

Similarly, the study conducted by Smith et al. (2019) indicates that lecturers predominantly employ the expert teaching method, relying on their experience and authority to communicate information to students. In contrast, the study by Farooq et al. (2022) revealed that most teachers use the facilitator teaching style, the following most used teaching style is expert, on the third level, the teachers use the delegator teaching style, the send last style teachers used was formal authority, and the last one style was a demonstrator. Furthermore, according to the research conducted by Shaari et al. (2014), most lecturers employ a personal model, followed by the expert style, while the delegator style has the lowest average. The majority of the respondents were found to be actively engaged in academic pursuits.

These findings emphasize the need to acknowledge and adjust to the varied requirements and preferences of both lecturers and learners within the medical classroom setting. By adopting diverse teaching methodologies, educators can cultivate a vibrant and exciting learning atmosphere that accommodates the unique requirements of students, eventually augmenting the entire educational encounter.

B. Students' Motivation Level in Medical Departments

The data processing findings of student motivation in learning were disseminated by questionnaires, as indicated in Table III.

A total of 247 university students answered the questionnaire on the motivation for studying medical departments, as indicated in the accompanying table. The questionnaire's findings revealed diverse motives among the participants for different comments. Statements X1, X2, X4, X5, X8, X9, X14, X15, X16, and X17 exhibited high levels of motivation, with positivity and importance ranging from 70% to 79%. Conversely, statements X3, X6, X7, X10, X11, X13, and X18 had more significant percentages, ranging from 81% to 83%, which suggests that students have a notable amount of drive.

A t-test was performed on statements 18–23; statement X12 had the lowest amount, specifically 59.76%. The t-test score of (−0.17) indicated that this statement was considered non-significant. Fig. 2 will illustrate the graphical outcomes of student responses to certain incentive statements. The survey findings are essential for comprehending students' enthusiasm toward studying medical departments and may be used to enhance the quality of education and student involvement.

The graphic indicates the students' reactions to several statements concerning their degrees of motivation in medical departments. After careful analysis, it was noted that the majority of students concurred with statements X3, X6, X8, X9, X12, and X18. The statement that received the highest level of agreement was X3, with 50.20% of respondents indicating a strong level of motivation. Conversely, a mere 38.87% of participants concurred with statement X8. In statement X6, 43.72% of students strongly agreed. This percentage somewhat declined in statements X18 (36.44%) and X3 (33.20%). It dramatically reduced to 19.03% in X9 and X8 (9.72%), as well as X12 (9.31%). Although some students chose to provide neutral responses, the proportion of those who picked this choice was greater for statement X9 (31.58%) compared to all other statements. Several

TABLE III
STUDENTS' MOTIVATION IN MEDICAL DEPARTMENTS

Xi	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Sd	Percentage of Mean	T-test	Significant	Direction
X6	4	5	39	91	108	4.19	0.89	83.81	21.06	Sig	Agree
X18	3	1	39	114	90	4.16	0.79	83.24	23.12	Sig	Agree
X3	3	4	34	124	82	4.13	0.79	82.51	22.28	Sig	Agree
X11	5	7	40	104	91	4.09	0.91	81.78	18.89	Sig	Agree
X10	5	2	42	119	79	4.07	0.84	81.46	20.12	Sig	Agree
X7	4	11	39	104	89	4.06	0.92	81.30	18.24	Sig	Agree
X13	1	7	38	131	70	4.06	0.77	81.21	21.78	Sig	Agree
X2	2	6	51	121	67	3.99	0.81	79.84	19.33	Sig	Agree
X5	2	8	50	122	65	3.97	0.82	79.43	18.66	Sig	Agree
X16	4	7	54	114	68	3.95	0.87	79.03	17.22	Sig	Agree
X1	3	8	50	132	54	3.91	0.81	78.30	17.76	Sig	Agree
X17	4	2	62	124	55	3.91	0.80	78.14	17.74	Sig	Agree
X15	4	6	59	121	57	3.89	0.84	77.89	16.76	Sig	Agree
X14	3	11	45	142	46	3.88	0.80	77.57	17.21	Sig	Agree
X4	3	3	65	130	46	3.86	0.77	77.25	17.63	Sig	Agree
X9	4	10	78	108	47	3.74	0.87	74.90	13.50	Sig	Agree
X8	11	24	68	96	48	3.59	1.05	71.82	8.87	Sig	Agree
X12	46	23	69	106	3	2.99	1.15	59.76	-0.17	non-Sig	Neutral

tab T $\alpha/2$, n-1=1.968, α=0.05

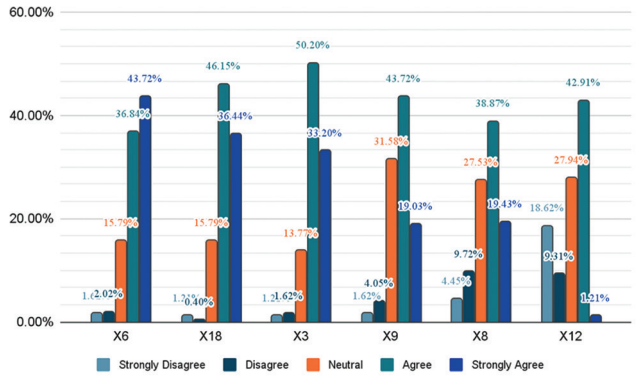

Fig. 2: The levels of students' motivation in some statements.

students expressed significant dissent toward propositions X6, X18, X3, X9, and X8, with the largest level of disagreement seen in X12 (18.62%).

Overall, the analysis of the responses indicated that students in medical departments have a favorable inclination toward studying. This may be attributed mostly to the many teaching styles employed by lecturers in different circumstances and at different times. These teaching styles are influenced by the teachers' expertise and abilities, as well as their ability to adjust to the student's proficiency levels preferred learning methods, and the learning environment. The diverse range of responses on motivation levels can be linked to factors such as the student's history, interests, economic circumstances, and familial difficulties.

Setiowati (2007) asserts that teachers have consistently demonstrated a perceptive understanding of their students' need for motivation over the course of history. By implementing this style, the learning activities become more pleasurable, the communication becomes more seamless, the anxiety levels of students are diminished, and there is an enhancement in student engagement and learning results. In addition, Gusfiani's (2014) study showed that the integration of several teaching styles had a substantial and beneficial effect on student motivation. Moreover, the results from Studies and Direction's research suggest that the students' perception of the teaching style positively correlates with their motivation to achieve.

C. The Correlation between Lecturers' Teaching Styles and Students' Motivation

The study investigates the relationship between the teaching styles employed by teachers and the level of motivation exhibited by students, showing a noteworthy association between these two factors. During the observations, instructors effectively involved students by explaining the subject topic clearly and providing plenty of examples. Some of them utilized diverse techniques for questioning to encourage active participation and investigation by students. The practical classes included hands-on experiments, which motivated students to directly investigate various methodologies related to the topic. The technique generated enthusiasm among students, especially since teachers presented a variety of questions that catered to both less proficient and highly talented students. Opdenakker et al. (2012) state that the level of cooperation displayed by instructors has a substantial influence on student motivation. Within medical departments, several instructors offered assignments both in traditional classroom settings and on digital platforms such as Moodle, promoting the development of investigative abilities. Regular trips to medical institutions enhanced students' comprehension of equipment and procedures, promoting classroom discussions. This study corroborates the findings of La Ode, et al. (2019), highlighting the substantial influence of instructional methods on student motivation. According to Hasibuan (2009),

enhancing instructional approaches can strengthen student motivation. Struyven et al. (2010) emphasize the direct relationship between different teaching styles and student motivation, which is supported by O'Brien's (2012) findings of specific student results linked to a range of teaching approaches. Therefore, utilizing a variety of instructional methods helps amplify student motivation and involvement.

V. Conclusion

This study aimed to elucidate the motivating level of medical students toward various teaching styles. The results demonstrated a clear and substantial link between the teaching styles employed by lecturers and the level of motivation exhibited by students. Researchers observed that medical lecturers utilize several teaching styles, such as expert, facilitator, role model, delegator, and formal authority, based on the particular situation and environment. The various teaching styles have a substantial influence on the student's level of motivation. The predominant teaching approach adopted by lecturers was the "expert style," characterized by a teacher-centered focus. The favored teaching style was the "facilitator style," characterized by its focus on student-centered learning. The "demonstrator style" and "authority style," which are both teacher-centered, were the two favored teaching styles, whereas the "delegator style" was the student-centered style. Utilizing diverse teaching styles can inspire students to improve their understanding and abilities, allowing them to successfully apply what they have learned. Overall, students in medical departments had a high degree of motivation, as indicated by the student questionnaire and observations. However, certain students lack motivation and choose not to participate due to teaching styles that do not align with their learning preferences. The learning environment in practical lessons was superior to that in theoretical classes for studying. Certain instructors employed a limited number of teaching methodologies within the classroom, such as utilizing data displays to convey visual information, including movies, and implementing interactive exercises. During practical classes, various equipment was used to enhance experiential learning.

Various obstacles were faced during the distribution of questionnaires. Initially, the lack of instructors in the medical departments presented a limitation. Furthermore, numerous teachers delivered instruction on similar subjects to students from diverse departments. In addition, the completion of questionnaires was impeded by the demanding schedules and extended teaching hours of certain instructors. In addition, there was observed a hesitancy among certain students to respond to the questions. Ultimately, the researchers encountered challenges in observing a diverse range of classes because of time limitations caused by overburdened teaching schedules and conflicts with their lectures.

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