Instructional Strategies in Bedside Teaching Sessions in Public Sector Hospitals in Iraq

Suzan Salih Mohammad¹, Shamala Paramasivam²* ⓘD, Ramiza Darmi³ ⓘD, Normala Ibrahim⁴ ⓘD

¹Department of English, Faculty of Modern Languages and Communication, 43400, Universiti Putra Malaysia, Selangor, Malaysia.
Email: suzansalih869@yahoo.com
²Department of English, Faculty of Modern Languages and Communication, 43400, Universiti Putra Malaysia, Selangor, Malaysia.
Email: shamala@upm.edu.my
³Department of English, Faculty of Modern Languages and Communication, 43400, Universiti Putra Malaysia, Selangor, Malaysia.
Email: ramiza@upm.edu.my
⁴Department of Psychiatry, Faculty of Medicine and Health Sciences, 43400, Universiti Putra Malaysia, Selangor, Malaysia.
Email: normala_ib@upm.edu.my

CORRESPONDING AUTHOR (*):
Shamala Paramasivam
(shamala@upm.edu.my)

ABSTRACT

Bedside teaching is an effective and commonly used teaching method in medical education. However, few studies have analyzed the language and instructional strategies used during real-life interactions in bedside teaching sessions. Past research investigated the effectiveness of bedside teaching methods from medical instructors' and students' perspectives and the influences of the relationships between instructors and students on the success of this teaching method. This study sheds light on the discourse of bedside teaching in Iraqi hospitals from a linguistic perspective. The data were collected qualitatively in the form of 26 video recordings of medical instructors and medical students in interactions in two public hospitals in the Kurdistan region of Iraq during bedside teaching sessions and were analyzed in a mixed method technique. Discourse analysis was the research design and Nilsson et al. (2010) classification for instructional strategies was used as the analytical framework of the study. The findings revealed that seven instructional strategies associated with various pragmatic functions were employed by the instructors. The findings imply that the use of proper and effective instructional strategies that suit communicative medical events would have an impact on the understanding, expectations, and situational needs of medical students. The findings have pedagogical implications relevant to the fields of medical education and applied linguistics. This study represents a pioneering attempt to analyze bedside teaching sessions in an Iraqi context. It could therefore form a basis and starting point for future research in the fields of medical education and applied linguistics.

Contribution/Originality: This study is one of very few studies which have investigated actual bedside teaching interaction between medical doctors and medical students from a linguistic perspective. The originality of the study is in its effort to intersect medical education and applied linguistics.

1. Introduction

Medical education has been recognized globally as an essential criterion for the progress and development of the medical health sector. It is however paramount that the level of progress of any country can be evaluated based on how it has incorporated and implemented the field of medical education into their curriculum and also in their everyday life as a society. Public hospitals and other medical institutions inculcate knowledge, medical skills, values and professional ethics in medical students through clinical instructors.

Graham and Dornan (2013) asserted that effective interaction in teaching increases instructors' and medical students' understanding and support delivering the knowledge, skills, values and norms of the medical profession. Hence, it is of essential importance to consider the selection of a particular method of study for bedside teaching (BST) sessions. Teaching in medical education is an instructional method used to benefit medical students through providing them with opportunities for practice in order to improve their future medical performance (Gray et al., 2017; Narayanan & Nair, 2020).

The BST session is a vital module of medical education conducted in the presence of patients. Teaching in clinical settings such as BST sessions is a very daunting, complicated and sometimes frustrating task given its various demands on the individual who acts as both a physician and an instructor at the same time. Furthermore, teaching in this context demands the involvement of both patients and the medical students who are simultaneously seeking greater attention from the instructors during the sessions, thereby increasing the excessive pressure on the instructors. On the part of students, such a teaching method shapes the medical students' interpersonal skills so they become able to communicate effectively in various medical encounters and with various types of patients (Kianmehr et al., 2010).

Thus, in the BST setting, interactants play different roles and have different plans and objectives. The instructors' role entitles them to provide the students with the necessary knowledge, skills, and experiences smoothly and effectively. Instructors also monitor and evaluate students' performance and practices of cases. Instructors' main objective is to enhance students' understanding of the medical content to become successful doctors. To achieve these purposes, instructors usually use certain instructional strategies so that the teaching sessions benefit the students and enrich their knowledge and experience. Medical students, on the other hand, play different roles from those played by their instructors. First, they receive knowledge and benefits from instructors. Second, they have to demonstrate understanding of patients' medical cases and communicate with them appropriately and effectively (Indraratna et al., 2013).

Interaction in an institutional discourse requires interactants to use verbal and non-verbal strategies to communicate their pre-determined plans or objectives. What makes institutional discourse different from everyday interactions are the pre-determined

objectives, the variance of the interactants' roles in conversations, and the types of constraints that appear during the interactions (Freed, 2015). BST sessions are typically institutional because interactants are instructors and students who have different roles and pre-determined objectives. Furthermore, the interaction takes place in the patient wards with its specific constraints and procedures.

However, what makes the teaching in BST different from other teaching settings in education, such as the classroom, is the fact that the BST session is conducted in real-life situations with the presence of real medical cases. Such authentic situations provide a chance for students to ask relevant questions related to the history of a medical case, to develop physical examination skills in a sympathetic manner and to model professional behaviors, skills and attitudes (Aljabarti, 2018).

Teaching is achieved via a variety of instructional actions and these actions are mainly accomplished through language. A review of related literature revealed that many studies have been conducted to examine instructional actions and strategies performed by teachers and students in educational settings such as classrooms, including research on requests, questions, politeness, apologies, and interruptions (Sert, 2019; Ivana Swastiana et al., 2020; Ahmad et al., 2019) as well as doctor-patient interactions during medical visits (Jiang et al., 2020). Commonly, during BST sessions, instructors perform a number of speech acts, such as requesting, asking questions, and answering, among others which can carry the meaning and functions of the medical content as intended and as seems appropriate and necessary to communicate by the instructors to their medical students. Thus, other instructional strategies important for achieving the objectives of teaching were also studied. These strategies are deliberate actions that have associated purposes, settings, forms and consequences and are used mainly to structure and manage the sessions so that educational input is delivered effectively and smoothly. It is worth mentioning that the instructors used these instructional strategies through involvement of the major and subcategories of the speech acts.

2. Research Problem

This section presents the research problem and study objectives through a review of previous literature in relation to the studies that have been conducted in institutional settings especially in medical settings.

2.1. Bedside Teaching in the Literature

Survey of literature revealed that previous studies in the medical field mostly focused on the medical language of written discourse such as medical, progress reports, medical journals, case reports among others (Hung et al., 2020) rather than oral discourse (Waitzkin, 2008). Furthermore, the literature shows that the focus on patient-physician communication has received great attention (Mikel et al., 2013; Paternotte et al., 2015).

In institutional discourse, the focus of earlier research was on the description of the typical sequential interaction between teachers and their students in the classroom environment (Cazden, 2001). The typical pattern of classroom interaction was the teacher-led, three-part sequence of initiation and response followed by feedback or evaluation (IRF, IRE). Therefore, the teacher was in control of the classes and elicited responses from the students. Classroom interaction has been a fundamental concern in the teaching and learning process in the areas of language teaching, language acquisition,

and the actions and strategies utilized in the interactions. In light of this fact, a number of studies have been accomplished (Liskinasih, 2016).

To the best knowledge of the researcher, research in medical education related to interaction during BST sessions has been relatively neglected. There have not been enough studies that identified these particular educational skills that help in achieving the goals of medical teaching for undergraduate medical students. The available studies that were conducted in this area of research focused on three main aspects. The first focused on eliciting medical students' perspectives on the effectiveness of the BST method (Khan, 2020). The second attempted to examine the reasons behind the decline of BST (Peters & Ten Cate, 2014). The third focused on understanding the relationship between instructors and their students (Shammin et al., 2020). Although these aspects are necessary to explore, the actual interactional discourse between instructors and medical students in BST has nevertheless received less analytical discourse attention and remain scarce.

Survey of literature shows that the practical nature of teaching has been investigated in the context of maths, science and English language (Apriliyanto et al., 2018), where the interactions between teachers and students in the class discussion were examined. There is a lack of studies about the practical nature of teaching from the linguistics perspective during the BST. Consequently, there is a need to understand the practical nature of teaching in the medical context as the current study intends. Further, by reading through the literature about BST sessions, it appeared that previous research was limited to identifying the communication strategies used by the instructors, such as asking patients' permission, diagnosing learner and patient, using simple language, asking patient if there is any question, and giving feedback privately. However, little has been said about the use of the main instructional strategies, such as question-answer, lecturing, piloting, prompting, supplementing, intervening, and demonstrating. This paper, which is part of a larger study on instructional strategies used in BST sessions, reports the findings on three instructional strategies used in BST sessions: lecturing, intervening and demonstrating strategies (see Figure 1).

There is common agreement among researchers on the effectiveness of using BST in medical education (Aljabarti, 2018). Nevertheless, it has been reported that this method of teaching has been declining during the last two decades. Peters and Ten Cate (2014) mentioned three main reasons that possibly caused such decline, including the "increased patient turnover in hospitals, the assumed violation of patients' privacy and an increased reliance on technology in the diagnostic process" (p. 77). Analyzing BST sessions in terms of the use of language would provide more practical evidence of the strategies used. Therefore, studies such as this are an attempt to revive the strengths of this method of teaching (i.e., BST). To conclude, the intent of this study was providing an in-depth analysis of instructional strategies performed by instructors to teach medical students. This study sought to identify answering the question below:

    i.   What are the instructional strategies employed by the instructors during the BST sessions?

Jiang et al. (2020) studied doctor-patient relationship in China. The researchers aimed to introduce clinical scenario dramas for the clinical teaching to impart communication skills to the medical students and evaluate their efficiency. Results of the study compared to the conventional teaching method showed that the clinical drama scenario had a role in enhancing the medical students' confidence and understanding of the impact of clinical

communication skills. Throughout BST sessions the students also met patients, and this was an essential medium to impart communication and medical skills to the students.

Figure 1: Conceptual Framework
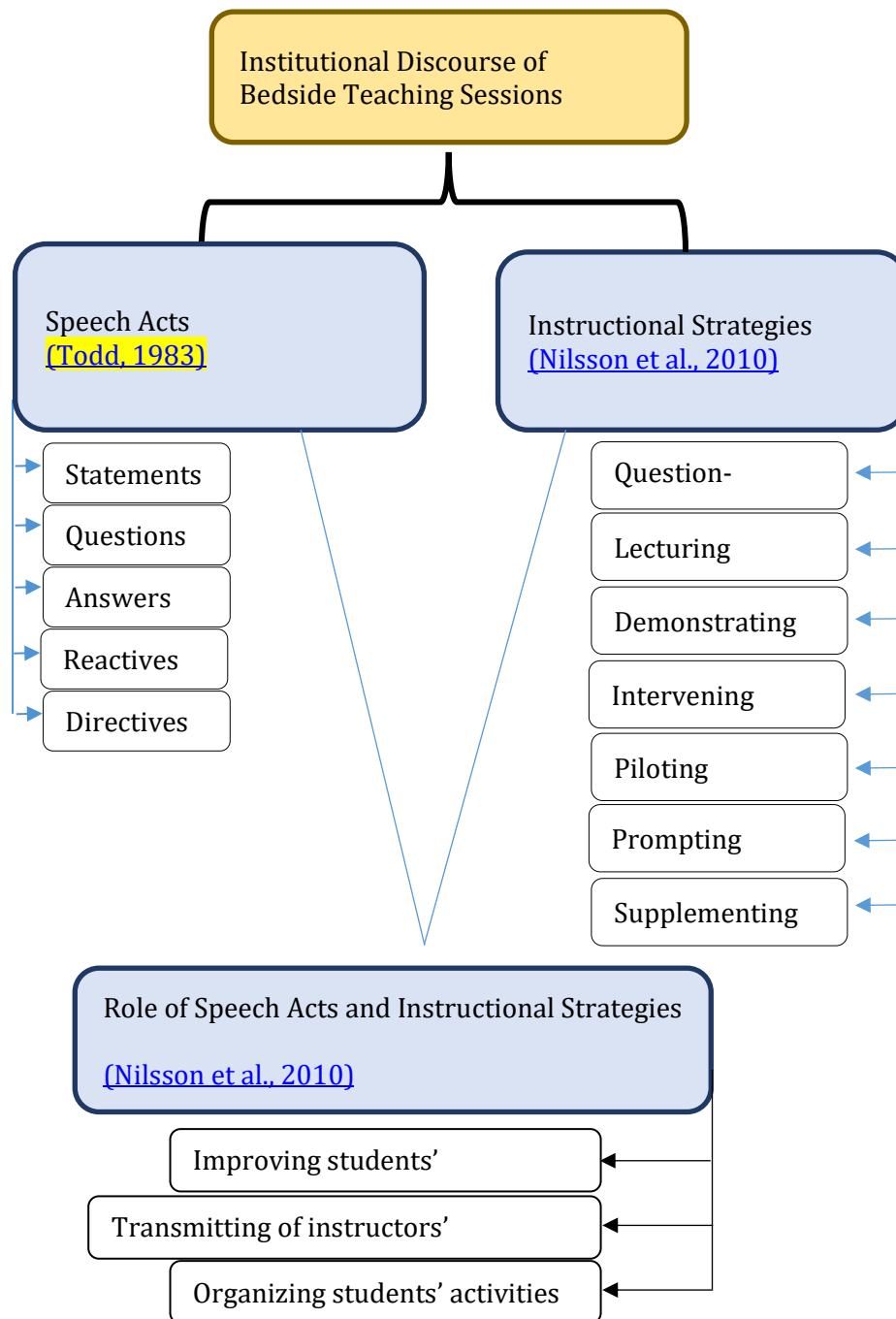
Navaz (2013), analyzed oral discourse regarding students' and lecturers' perceptions about the interaction between lecturers and their students. The study was conducted in English medium science lectures in a university in Sri Lanka. Data were collected via questionnaire, interview, observation, and audio recording. The data was analyzed qualitatively using a thematic approach, and the quantitative data analysis was done via SPSS and Microsoft Excel spread sheets. The study assumed that dialogic interaction in the settings under investigation would better assist students to have more active roles in class discussions than recitation of scripts. However, the conclusion from this study was that most of the students neither asked questions nor gave answers to questions.

Consequently, these had a significant effect on students' passive conduct inside the classrooms. Nilsson et al. (2010) conducted an observational study at a surgery unit in a Swedish hospital to investigate the instructional strategies employed by clinical teachers in medical education. The medical students were in the fourth year of their study program. The focus of the research was on the instructional strategies employed by clinical teachers to communicate medical information and knowledge in medical encounters. The researchers adopted an ethnographic approach to qualitatively identify the strategies used by determining the ways clinical teachers communicate meanings and manage teaching sessions. The main data came from observations and informal interviews. The findings showed that the teachers used seven instructional strategies. The researchers suggested conducting further research to observe the teaching sessions in medical encounters using other observation techniques, such as audio or video recording, which might lead to further understanding of teaching in medical settings.

2.2. Theories on Teaching Strategies

In general, studying instructional strategies from teaching perspectives can help clarify the roles of these strategies in the teaching process within a university context. In particular, the study of the relationship between the instructional strategies and teaching perspectives can clarify the roles of university instructors in the learning process and understand how university students benefit from these strategies. Ramsden (2003), in his book, he proposed three teaching theories. These theories include (1) teaching as telling or transmission, (2) teaching as organizing student activity, and (3) teaching as making learning possible. In the following section, a detailed explanation of teaching as telling or transmission is presented as the theory that supports the scope of this research.

2.2.1. Theory and Strategies of Teaching as Telling or Transmission

Teaching as telling or transmission theory posits that instructors in higher education transmit information or demonstrate procedures to their students. This process is common in most conventional classrooms. Based on Ramsden (2003), the transmission of knowledge and learning content is the responsibility of the instructors, who should possess a sufficient store of knowledge. It is also characterized by the transmission of content that reflects instructors' authority as the only source of undistorted and unproblematic information. This view of instruction is justified by the large amount of information that needs to be transmitted by university instructors, which limits the time given to students to take part in interaction.

Transmission or telling requires instructors to employ instructional strategies to achieve a smooth and effective transmission of knowledge, learning content, and demonstration of tasks. Such knowledge helps instructors to explain the content and demonstrate the relevant procedures smoothly and effectively. Since the source of the knowledge comes from the instructors, Ramsden (2003) noted that instructors do not have to discuss the students' understanding of the content, which makes students slightly passive recipients of knowledge that is transmitted by one dominating person, the teacher. Nevertheless, students are cognitively active and learning is still proceeding.

From a teaching perspective, three strategies are employed including lecturing, demonstrating, and intervening. The teaching strategies employed under this theory are explained in the following sections.

2.2.2. Lecturing Strategy

As a teaching method and an instructional strategy, lecturing permits instructors to have an obvious plan for a teaching session. This planning incorporates clear steps and moves between the sections of the session. Consequently, learning will be framed and student's knowledge and skills will be constructed, as well.

Linguistically, this strategy is performed in the form of declarative and assertive 'statements' as speech acts. Pragmatically speaking, this strategy is used in medical teaching when instructors need to fill in students' lack of knowledge, correct student's errors and erroneous behavior or reasoning, define the meaning of medical terms, explain symptoms of illnesses, or explain areas of medical treatment. Besides, a lecturing strategy can be useful in establishing relationships between previous and current medical issues or topics. Furthermore, lecturing is used to communicate instructors' personal experiences and knowledge to students in order for these students to enrich their experiences (Nilsson et. al., 2010).

2.2.3. Demonstrating Strategy

Demonstrative strategy is used in order to demonstrate necessary medical points. This means that the instructors rely on their medical knowledge and experiences to guide students through the best ways of assessing, communicating, and perceiving the problem of the medical case at hand. It also allows instructors to direct students on how to perceive the medical problem and what to focus on. This is achieved by displaying and performing appropriate and correct medical practice. This strategy is also helpful as it can facilitate student perception of the learning material so they can build their understanding of the medical case under study. Similar to a lecturing strategy, the students' understanding of the transmitted content is not discussed or negotiated in this strategy because the instructors are the only ones who possess the source of knowledge. Thus, this strategy can be classified as instructor-centred methodology (Nilsson et. al., 2010).

2.2.4. Intervening Strategy

Intervening strategy enables instructors to interfere in case students become unable to complete their tasks. This interference can allow students to achieve their tasks as required and considered satisfactory by their instructors. Intervening teaching strategy is instructor-centred. It entitles instructors to assume authoritative roles in order to handle, explain, or demonstrate medical points. Pragmatically, this strategy enables instructors to focus the discussion on necessary medical aspects, such as treatment, management and organization. However, the students' actions can be interrupted, which might impair their learning process, making them feel excluded and their knowledge undervalued.

From what has been mentioned in the above sections it is obvious that the teacher-centered method is still the prevalent pedagogical approach as the instructor is positioned at the core of the teaching procedure. However, there is no active participation for the students due to various factors. Nevertheless, in order to obtain the best learning-teaching objectives students should be given active opportunities in the learning process to use their prior knowledge and combine this with the new knowledge. It is preferred that teachers be flexible and adapt their teaching approach according to the number of

students in the class, availability of teaching and learning materials, and the school environment in general (Nilsson et. al., 2010).

3. Material and Method

3.1. Research Design

This study adopted a discourse analysis approach (DA) to investigate the institutional discourse of BST sessions. Based on this approach, data were collected qualitatively through video recordings of naturally occurring conversations between medical instructors and their medical students. Collecting such data in the present study was helpful in understanding the nature of interaction in teaching medical discourse in real-life situations. Participants in the study were assured that the data would be confidential. Video recording helped the researcher to capture the properties of the instructor-student interactions and spontaneous speech. The recorded data in the present study were first transcribed verbatim then coded to capture the verbal behaviors of the participants.

Upon the completion of data collection, the data were transcribed verbatim analyzed according to the DA approach. Baxter (2010) noted that the use of this approach in the data analysis stage can help identify any "orderliness, logic, and meaningfulness to linguistic performance" (p. 124). Discourse analysis also helps to recognize the role of context in shaping the personal and interpersonal relationships among the participants. To answer the research question, quantitative discourse analysis was first conducted to identify and determine the types and frequencies of the instructional strategies employed by the instructors during sessions. For this purpose, Nilsson et al.'s (2010) classification of instructional strategies employed was used as a reference framework.

3.2. Context

The present study took place in two of the public hospitals related to Hawler Medical University in Kurdistan Region of Iraq. These hospitals were selected because they are the only hospitals providing medical training in the form of learning services to medical students. In addition, they also provide medical services to the public, and most of the patients from other nearby regions were referred to them, which facilitated the collection of data required in the present study.

During their programs of study in medical college, students accompany their instructors on a number of field visits. The purpose of these visits is to enhance students' experience and to give them required practice before further involvement in actual medical practice. This is usually done through BST sessions that were conducted inside the wards of the hospitals.

3.3. Participants

Two types of participants took part in this study. The first type comprised 13 male medical consultants. They were lecturers in the two hospitals from which the data were collected. These lecturers had extensive experience in the medical field. They participated in the present study as instructors who guided a group of students in best medical practices during BST sessions. They were Iraqi Kurds who spoke English as a foreign language. Their ages ranged from 33–60 years old (Table1). Each instructor participated in the present study twice as they accompanied the same group of students to two BST sessions

with two different medical cases. Each instructor is denoted with an alphabetical code (A–M), as shown in Table 1., to make them easily identifiable in the data transcripts and analyses.

Table 1: Description of medical instructors

Medical Instructors	Code	Gender	Age	Specialty	Years of Experience
Ins. 1	A	Male	38	Internal Medicine	8
Ins. 2	B	Male	38	Cardiologist	8
Ins. 3	C	Male	50	Internal Pathologist	24
Ins. 4	D	Male	51	Internal Consultant	23
Ins. 5	E	Male	47	Internist	24
Ins. 6	F	Male	40	Cardiologist	16
Ins. 7	G	Male	48	Rheumatology	20
Ins. 8	H	Male	53	Internist	28
Ins. 9	I	Male	52	Internal Medicine	27
Ins. 10	J	Male	40	Neurologist	12
Ins. 11	K	Male	46	Internal and Chemical Pathology	23
Ins. 12	L	Male	46	Consultant Neurologist	22
Ins. 13	M	Male	42	Neurologist	18

The second type of participant (Table 2) comprised 48 medical university students (36 females and 12 males). The students were in their final year of their degree programs. They were studying medicine in Hawler Medical University in Erbil, Iraq and practiced in the hospitals. It was assumed that they were more acquainted with presenting cases in BST wards. Students' ages ranged from 19 to 26 years old. During each session, one of these students was responsible for presenting the medical case orally in front of the instructor and students. The other group members were active listeners, who performed their parts based on the instructor's instructions.

Table 2: Description of medical students

Participants	Number	Male	Female	Grade	Age
Medical Students (Total)	48	12	36	6th	19–26
Principal Student (BST) session	24	6	18	6th	19–26

Both types of participants were selected using a convenience sampling technique (Creswell, 2013). This type of sampling was used because the participants were nominated by hospital administrators based in part on their availability at the time of data collection. As the recordings included naturally occurring interaction in the BST sessions, no control over the age of the lecturers and students or their gender was imposed.

3.4. Data Collection

The first data collection procedure was to obtain the required permission from the two hospitals and consent from participants. This included arranging with a number of instructors regarding their approval of the time and location of the sessions. The students' consent upon their participation in the present study was also obtained in written form. The second procedure involved observation and video recording of the BST sessions.

3.5. Data Analysis

The data for this study were derived from observations and video recordings of medical instructor-student interactions collected in a number of the BST sessions. The instructors were assisted by students who took patient histories, dispensed medications, and performed similar work during pre-session times. The analysis was based on the assumption that interactional discourse is a type of communication that is influenced by the type of interaction and the participants' relationships. Each BST session was examined in terms of the use of language.

Each recorded session started with a presentation of the medical case by a principal student, who had the medical information collected about the patient at hand. During the oral case presentation, the other students were listeners. This remained the case until the instructor started asking questions to make sure that all students understood the presentation and the medical case. The instructor usually interfered or interrupted the presenter to achieve other purposes, such as providing information, giving feedback, providing corrections, and passing assessments by using a number of instructional strategies.

The analysis of the instructional strategies was conducted in this study following Nilsson et al. (2010), who stated that seven strategies are used during the interactions between doctors and students. The identification of these strategies depends on the type of utterances and speech acts used to communicate the ideas in the instructors' talk. The identification of each strategy was made based on the definition of each of these strategies as proposed by Nilsson et al. (2010).

3.5.1. Data Transcription and Preparation

Prior to transcribing the sessions, the researcher watched the recordings repeatedly to obtain initial understanding of the methods of students' presentation and nature of the interactions. Then, BST sessions were transcribed verbatim using Jefferson's Notation System (2004).

3.5.2. Analyzing the Data

The second procedure included the identification of the types and functions of the instructional strategies. This procedure was carried out in three steps as described below.

   i.   Developing a Coding System

After transcribing the 26 bedside teaching sessions, there was a need to closely inspect the transcripts to explore what the interactional data displayed. This process included highlighting, underlining, making notes about each transcript, and indicating the major themes via the use of a Microsoft Excel worksheet.

ii.   Methodological Analysis

Upon the completion of coding analysis and calculating the inter-rater agreement, the researcher started the methodological analysis to answer the research question. For the research question, each instructor's turn was analyzed and classified based on Nilsson et al. (2010), who proposed a number of instructional strategies usually employed in higher education learning and teaching. The analysis included determining the types, frequencies, and functions of each strategy as used by the instructors during BST sessions.

4. Findings

The analysis of the BST sessions of the current study revealed that instructors employed seven instructional strategies. Figure 2 shows the types and frequencies of the strategies found in the data.

4.1. Types and Frequencies of Instructional Strategies

As illustrated in Figure 2, seven instructional strategies were used by the instructors at BST sessions. The frequency of the strategies was as follow: question-answer strategy was the most frequently used (396, 40%). This is followed by the use of piloting strategy with the second most frequent usage (228, 23%) and prompting strategy with the third highest frequency of usage (10, 14%). With lower frequency rates, the instructors used supplementing, lecturing, and intervening strategies at 80 (8%), 72 (7%), and 36 (4%) occurrences, respectively. The least frequently used instruction strategy employed was the demonstrating strategy at only 8 (3%) occurrences.

Figure 2: Distribution of instructional strategies in bedside teaching sessions
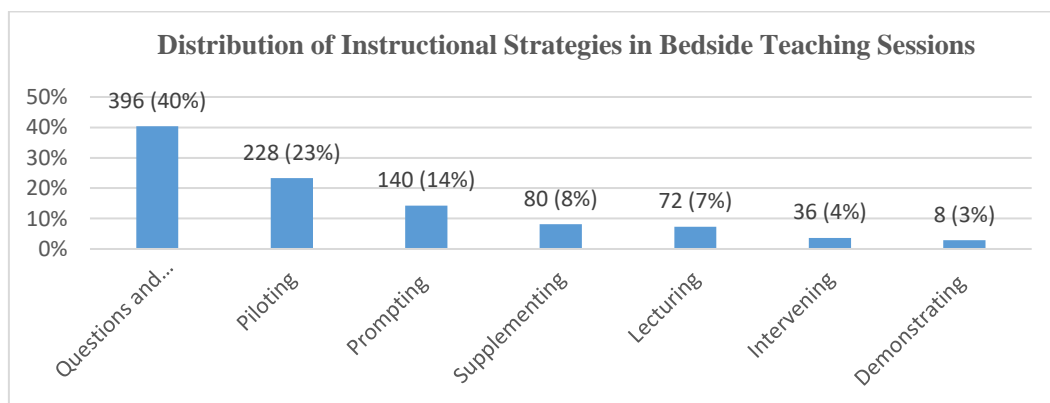
The scope of this paper is on the instructional strategies Lecturing, Demonstrating, and Intervening, all of which are strategies listed under the first theory of teaching. The following section reveals the pragmatic functions of Lecturing, Demonstrating and Intervening.

4.2. Pragmatic Functions of Instructional Strategies

4.2.1. Lecturing Strategy

The findings showed that instructors used lecturing as an instructional strategy through the use of statements as a speech act. This strategy occurred before the question-answer

strategy. Lecturing strategy is purely instructor-centred, and the students are, to a certain extent, passive recipients of the lecturing (see Example 1).

Example 1

797	Ins. K	:		Muscular cells. When you are taking history, you put differential diagnosis for yourself. You do or not?
798	St. 9	:		No, I just want to know regular or irregular.
799	Ins. K	:	→	You should put differential diagnosis for you in order to ask according to that. When the patient tells you 'I have chest pain', you put your differential diagnosis (DD), ... or confirm. Probably, you have patient ... some of them go ..., you should tell me positive and negative, no cough, no fever, ...If you say no hypertension, pain is not moved to the back, this is important. So, ..., you put your DD of pneumonia and valvular heart disease. In the general and the precordium, what do you want to examine?

As it is shown in Example 1., the instructor (Ins K) advised the student (St. 9) to plan for his or her diagnosis through making a list of "differential diagnoses." This list was seen important by the instructor to "include or exclude or confirm" the questions forwarded to patients, thus arriving at the correct diagnosis of his or her medical case and providing a proper oral case presentation. As illustrated in the example, the instructor prepared for lecturing strategy in Line 797 by asking the intonation question "When you are taking history, you put 798 differential diagnosis for yourself. You do or not?" Based on the student's answer in Line in which she confirmed not having a list, the instructor used lecturing strategy in Line 799. The lecturing strategy consisted of a number of statements in which the instructor provided detailed explanation of the list content and its advantages. He also provided examples that demonstrated how to use the list when dealing with history taking. Clearly, the instructor was not satisfied with the principal student's oral case presentation as he thought it lacked the proper history information that was necessary for proper diagnosis of illness. It is worth mentioning that the instructor did not discuss the students' understanding of the transmitted content during the lecturing turn. This indicated that making the list, as suggested by the instructor, was mandatory and had to be made without negotiation. The only discussion about the suggested list was delayed towards the end of the instructor's lecturing turn when he forwarded a question that checked the students' understanding of the instructor's advice: "In the general and the precordium, what do you want to examine?" This question marked the end of the lecturing turn and the movement to another stage of the BST session. Though most of the students were silent for the most of the time and contributed merely brief utterances throughout the use of lecturing strategy, they could not have been considered cognitively passive. This is concluded from the fact that the students were attending BST sessions to pay close attention and listen to learn. They listened to learn, to pass exams and become qualified practitioners. The findings in this section are similar with Nilsson et al. (2010), who found that lecturing strategy can achieve a number of pragmatic functions.

4.2.1. Demonstrating Strategy

Demonstrating strategy as used by the instructors relied on their medical knowledge and experiences to demonstrate necessary medical points. This strategy entitled the instructors to guide students about the best ways of assessing, communicating, and

perceiving the problems of medical cases. The strategy also allowed the instructors to direct students on how to perceive medical problems and what to focus on (Nilsson et al, 2010). This was achieved by displaying the appropriate and correct medical practices. This strategy was also helpful as it facilitated student perception of the learning material so they were able to build their understanding of the medical case under study. The students' understanding of the transmitted content was mostly not discussed or negotiated in this strategy because the instructors were the only ones who were sources of knowledge. In this case, students were commonly passive recipients of the instructions. Thus, this strategy can be classified as teacher-centred (see Example 2).

Example 2

734	Ins. G	:	Other thing, you didn't tell us about the days at home. Why she didn't consult a doctor?
735	St. 26	:	I asked.
736	Ins. G	:	Ok, what did she say and in these days? Still I don't know what she did but ...did she use a lot of supplement table or not?
737	St. 26	:	I don't know.
738	Ins. G	:	So, probably I tell this to all students especially in this stage. When you read your history ... who did not see the patient before that. And after you complete your history, you feel the situation...your history is complete ... history is not good, you understand me? So, when you complete your history..., go and present to your colleague whom the patient has not seen by her or him and he tell you these are the gap areas. So, now what other questions you want to ask the patient?

In Example 2., the instructor (Ins. G) blamed the principal student (St. 26) for not obtaining enough history information about the patient, especially about the reason for the patient not paying a visit to an instructor: "you didn't tell us about the days at home." The lack of important information in the student's presentation inspired the instructor to seize the opportunity to transmit his experience to the students. To achieve such transmission, the instructor used the strategy of 'demonstrating' by which he gave his advice to the attending students. The instructor suggested making a trial presentation to colleagues who are not involved in the patient treatment before presenting formally in front of him (the instructor) and student colleagues involved in the BST session: "go and present to your colleague who the patient has not seen by her or him and he tell you these are the gap areas." Through feedback from these colleagues, the gaps in oral presentation could be filled and a complete history taking could be achieved. As can be noticed in this excerpt, the instructor did not allow any discussion after his use of this strategy. Using the question-answer strategy, he moved the session to the next topic. He says, "So, now what other questions you want to ask the patient." This reflects the nature of BST as being purely instructor-centred in which the instructors are the only source of information and the students are rather passive recipients who need to carry out the instructions.

4.2.3. Intervening Strategy

Intervening strategy is instructor-centred. Instructors possess knowledge and experience, which entitles them to take authoritative roles to interrupt the students and takeover situations to handle, explain, or demonstrate medical points (Ramsden, 2003).

The analysis of the data revealed that the use of intervening strategy achieved a number of academic functions. This strategy helped instructors focus discussions on important elements of medical treatment, management, and organization as planned by the instructors and performed by the students (Nilsson et al., 2010). This was helpful to get the BST sessions completed successfully. However, intervening strategy, although it is important, had negative consequences on students because interrupting them made them feel excluded and their knowledge undervalued. The teacher-centred nature of this strategy might consequently deteriorate the instructor-student relationship and impair their learning process. It is better for the academic individuals to maintain a balance between teacher-centred and learner-centred aspects through giving the students opportunities to participate and express their opinions (see Example 3.).

Example 3

700	Ins. K	:		She said shortness of breath with orthopnea, ok?
701	St. 24	:		Yes.
702	Ins. K	:		So, what is diagnosis? With this history, is it a complete history or not? If not, what are areas not complete? If complete, what are differential diagnoses? ((Asking all students))
703	Ss	:		((No answer))
704	Ins. K	:	→	I told you from start, no one write, do anything. Just listen to your colleague in order to know what she said. When one of your student …you are not involved. You are also involved because it is team learning. It is …r. No, so when I asked you…concentration during the presentation and what you don't know, what do you say? ((points at another student))
705	St. 24	: :		I want to know more about whether the condition started with the//
706	Ins. K	:		//This history is complete or not?
707	St. 24	:		No, I cannot reach diagnosis with it.

As it is shown in Example 3., after the instructor (Ins K) listened to the oral case presentation of the principal student (St. 24), the instructor extended the follow-up questions to the other attending students in Line 702. It seems that the instructor felt that there was missing information necessary for proper diagnosis of the patient's case. Meanwhile, the instructor noticed that the other students were busy writing notes without paying enough attention to the presenter. However, although the instructor thought that the students were careless, they may have had the ability to write notes and listen at the same time. At this point, the instructor in Line 704 intervened to stress the idea that oral case presentation is team learning and every student should contribute to it. The instructor, in this turn, criticized the students, "I told you from start, no one write, do anything. Just listen to your colleague in order to know what she said," and then provided a number of directions, "When one of your student or colleague presents a case, not mean you are not involved. You are also involved because it is team learning. It is not one presenting and you are writing, talking to one another."

5. Discussion

The findings revealed that the success of a BST session is in the hands of the instructors, who can transform instructional theories into real practice that can benefit the students

and help them to obtain the required knowledge and practice. This is accomplished through appropriate types of strategies. This is in agreement with Lekkas et al. (2007), who explained that learning skills are formed through the combination of theory and practice in the workplace, which is the responsibility of the teachers in medical practice. By the employment of the instructional strategies found in this study the instructors showed their abilities to engage students and stimulate their medical reasoning. This finding is consistent with Higgs et al. (2008), who maintained that educators acting as mentors in clinical teaching can help students develop their clinical performance. Instructors had deliberately employed them with various frequencies to control what was important for the students to focus on.

Moreover, the findings in this study are largely in agreement with Nilsson et al. (2010). These strategies were important tools for achieving effective teaching sessions. Similar findings were reached by Rees et al. (2013), who identified similar strategies such as questions, lecturing, and directives, in the talk of students and lecturers in BST sessions. The researchers noted that the uses of these strategies were dominated by teachers to enact power. In higher education in Iraq, the position of the teacher is authoritative and the teaching approach is mostly teacher-centred. This is because of the instructors' conception of teaching-learning as being dominated by them for knowledge transfer. This may be due to the education culture in Iraq or sometimes, it might be due to a lack of instructor training and a lack of medical education resources or even because of time limitations within the BST setting.

Furthermore, the analysis of the data showed that the instructors used the question-answer strategy to mark boundaries within the teaching sessions. The question-answer strategy was used after the lecturing strategy and demonstrating strategy. This shows that the question-answer strategy may have been helpful for the instructors to shift topics of discussion within the teaching sessions such as ending discussion on one topic and moving to another. The question-answer strategy was also used to move from one instructional strategy to another such as from lecturing to demonstrating. Similar findings were reached by Wear et al. (2005) and Heidenreich et al. (2000), who stressed the effectiveness of questioning as a pedagogical tool in higher education.

To conclude, although the number of students in each session was large, but because the students were attending the sessions to learn, it is preferred that the instructors increase the role of students by giving them space to ask questions and discuss and demonstrate their opinions. This can be achieved by creating an environment that eliminates fear for free interactions, not restricting students' roles to only giving answers or listening to instructions. In order to make students more active, student-centeredness or learning-centeredness approaches are essential to be adopted in the Iraqi context of BST.

6. Conclusion

Bedside teaching session is an essential component of medical education conducted in the presence of patients. Thus, the present research investigated the instructional strategies used in BST sessions as institutional discourse practiced by the instructors and medical students and explored the functions of these strategies on the teaching-learning process in BST sessions. Based on the types of instructional strategies employed in the Iraqi context of BST, it can be said that the teaching approach is mostly teacher-centred. The current research also acknowledges the fact that no research effort is by any means so conclusive that it achieves its objectives thoroughly. However, efforts were made to

describe and explore the institutional discourse of the BST sessions from a linguistic standpoint and provide important contributions to the teaching and learning processes in medical schools. Hopefully, the findings of the current research would have made at least a small contribution towards understanding BST sessions in the Kurdistan region of Iraq and similar EFL and ESL contexts. Future researchers should observe caveats to compensate for any of its limitations.

Ethics Approval and Consent to Participate

All procedures performed in this study involving human participants were conducted in accordance with ethical standards whereby informed consent was obtained from all participants according to the Declaration of Helsinki.

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Conflict of Interests

The authors reported no conflicts of interest for this work and declare that there is no potential conflict of interest with respect to the research, authorship, or publication of this article.

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