**International Journal of Advanced Biochemistry Research**
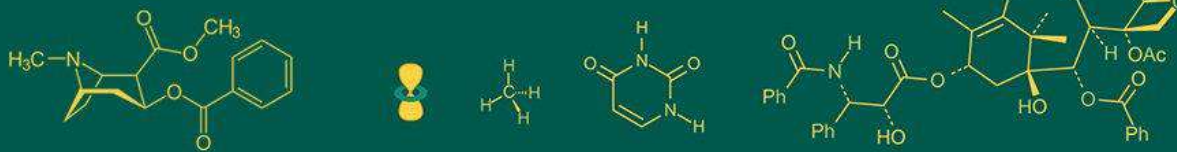
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# Evaluation of perception of first year medical students about their learning environment in a South Indian medical college

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**Abstract**
**Background:** Medical students' learning environment is crucial for effective learning and plays an important role in their academic success. Understanding the perception of medical students' learning environment, especially in first year may help in planning for interventions that will facilitate learning.
**Aims and objectives:** Aim of the study was to assess the perceptions of first year medical students about their learning environment in a south Indian Medical college using Dundee Ready Education Environment Measure (DREEM) scale
**Materials and methods:** The Dundee Ready Educational Environment Measure (DREEM) questionnaire was distributed to all 145 first-year medical students of a South Indian medical college during their induction programme. The questionnaire contained 50 items scored on a 0–4 Likert scale. There were five domains in the questionnaire, including students' perceptions about learning, teachers, atmosphere, academic self-perceptions, and social self-perceptions.
**Results:** 143 first year medical students participated in the study. The overall mean scores for student perception about learning, perception of teachers, academic self-perception, perception of atmosphere and social self-perceptions was 39.20/48, 28.24/44, 26.75/32, 32.74/48 and 18.47/28 respectively.
**Conclusion:** The overall student perception about their learning environment was positive. The analysis of the results also helped in identifying the areas that needed to improvement.

**Keywords:** Medical students, learning environment

## Introduction
In the recent years, there is a raising interest and concern regarding the role of learning environment in undergraduate medical education [1]. According to world federation for medical education the key stone to evaluate medical education programme is learning environment [2]. The learning environment quality plays a key role for effective learning [3]. Studies conducted across the world have shown that success, motivation, happiness and students achievements are all affected by educational environment [4]. Without compromising the standards and quality of learning, the medical educators across the world are trying to reform the education environment [5].
The Dundee ready education environment measure (DREEM) is a culturally non-specific, internationally validated, generic instrument designed to analyse undergraduate medical education environment [6]. With the data generated using DREEM scale, the institutions can identify the shortcomings and formulate changes in the learning environment [7].
This study aimed to assess the expectation of new medical students regarding their education environment at a single medical college using DREEM scale. The data generated from the study would lay a foundation for modifying and improving quality of medical education.

## Materials and Methods
The DREEM is an internationally validated, non-culturally specific, closed questionnaire designed to measure the learning environment of medical educational establishments [6]. The DREEM scale contains 50 statements falls into 1 of 5 subscales
- Student's perception of learning (SPOL). (12 questions, maximum score: 48)
- Student's perception of teachers (SPOT). (11 questions, maximum score: 44)
- Students' academic self-perception (SASP). (8 questions, maximum score: 32)
- Student's perception of atmosphere (SPOA). (12 questions, maximum score: 48)
- Student's social self-perception (SSSP). (7 questions, maximum score: 28)

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They were asked to read each item and to respond using a five point Likert scale. Items were scored four for strongly agree and zero for strongly disagree. Negative statements were scored in reversed.

This cross sectional questionnaire based study was conducted at our institute after taking the approval of institutional ethical committee and informed consent from the study population. The DREEM questionnaire were distributed to the entire fresher's. Few difficult terms in the questionnaire was explained in English as well as in the local language. It was distributed on the first day of the induction week; thirty minutes time was given to fill the questionnaire

**Statistical analysis**
The data collected was entered in the excel sheet. Analysis of DREEM was done by calculating the mean score across all participants for the each of the 50 items. The item in each of the 5 subscale were summed and mean is taken to give subscale summary scores and the overall DREEM score.
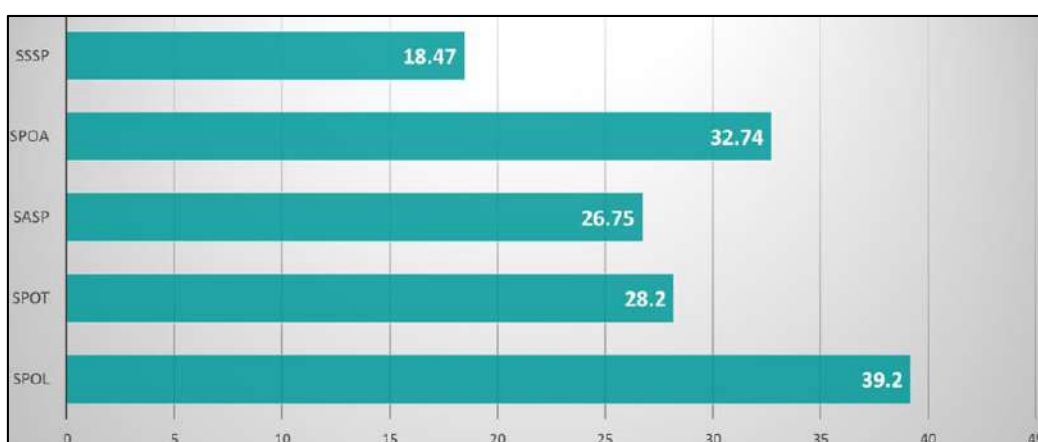
**Results**
The overall response rate was 98.6% (143 out of 145 students). Among 143 students 78 (54.5%) were female and 65 (45.5%) were male. Mean age of the participants was 18.3. dreem score was interpreted using Mc Aleer and Roff descriptors was used for the analysis of DREEM score [6].The global score indicated that, the overall the fresher's had positive attitude towards their learning environment. The score for student perception about learning was 39.20/48, i.e., a more positive approach of the students; perception of teachers was 28.24/44, i.e., moving in right direction; academic self-perception was 26.75/32, i.e., they were confident about their study environment; perception of atmosphere was 32.74/48, i.e., a more positive atmosphere and social self-perceptions was 18.47/28, i.e., not too bad. The highest score was found in student's academic self-perception.



**Fig 1:** Students perception of their learning environment

**Discussion**
This study originated from a desire to learn how students perceive the educational environment at our institution. The DREEM questionnaire provided an overview of expected perception of first year medical students about the learning environment of our institution and also highlighted the areas of concern. With a global score of around 145/200, the students rated the overall environment in this institution as more positive than negative perception about their learning environment.

There are several studies available regarding the perception of students at different phases. The studies conducted across the world show fairly common result. The study done in Malaysia at international Islamic university had a response of 117.9 /200 for the first year students after they have entered the course [8]. Similar study at UK medical reported mean of 139/200 [9].

In the present study there was no actual difference among the male and female perceptions which is in contrast with the study done on Nigerian student where the total score was higher in males compared to that of females [10]. Few studies pointed he higher scores in female which was attributed to their learning styles and their perception of learning environment compared to males [11].

The domain scores for the whole group were compared on the percentage basis. The highest percentage was observed for students' academic self-perception (83.5%) and the lowest score found for student's perception of teacher (64.18%).

There were 8 items which had mean score of less than 2. The majority of the items were from the 2nd domain i.e. student's perception of teachers which can be attributed to more comprehension of the students towards the new teachers and their mode of teaching. The more positive mean score was found for 3rd domain i.e. students' academic self-perception which indicates that the student was confident of themselves when they joined the course.

To conclude First year medical students at our institute perceived their learning environment positively. Some grey areas were identified that might require remedial measures to ensure and maintain a high-quality learning environment for the students because the students are not exposed to their actual environment, its only perception which can be changed once they get exposed. In future the authors have plan to take the actual perception of students about their learning environment and to correlate the actual versus expected perception.

**Limitations**
The results of the present study could not be generalised for the whole institute medical faculty because, in this study, the DREEM questionnaires were distributed to first-year medical students only without the involvement of medical students from other academic years.

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