

## Unraveling the secrets of high performance to help low performers

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### Need for the study

Identifying predictors of performance in medical graduates is important to ensure a supportive learning environment in an institution. This study was conducted to identify the characteristics that contribute to the high and low achievement among first year medical undergraduates in AIMST University, Malaysia. Student mentors can help the low performers adopt the identified characteristics so that they can then be on par with other students.

### Objectives

To generate evidence about factors in the institution and among students that already contribute to success among the high performers in order to apply them to students with low performance.

### Methodology

After obtaining the ethical approval from the ethics committee of AIMST University, Malaysia, the performance data of 44 first year medical undergraduate students was collected. The top one third who were high performers and the bottom one third who were low performers were separately subjected to a focus group discussion (FGD) to have a better understanding of the factors contributing to their high or low performance. In addition to the FGD, all students were encouraged to write their views on the specific factors which may have influenced their performance. These specific factors such as self-perception of their performance, attitude, expected goals, learning styles etc were identified through literature review and from the faculty who were teaching them.

After the FGD, one to one interviews were conducted for some students using a semi-structured interview schedule covering factors obtained from students' views and the focus group discussion.

These included learning style, teaching methods, attitudes, the environment of the classroom and of the examination, self esteem and extracurricular activities.

### Results

Quantitative analysis using SPSS v.11.8 revealed significant differences ( $p < 0.05$ ) in preferred place of study, peer support and extracurricular activities between high and low performers. There was no statistical difference between the two groups for factors such as study style, contribution of lecturers, teaching style, attitude towards peers and lecturers, influence of peer achievement, time management, assessment and self esteem. The study styles which were assessed included preferred time of study, duration, scheduling, daily reading, favourable environment, individual or group study and frequency of revision.

The qualitative analysis revealed some of the modifiable internal and external factors which may influence or affect their concentration in the classroom and during examinations. Among high performers, the internal factors that influenced classroom concentration were interest in the subject or the concerned topic as well as their mood and self-interest. The internal factors which influenced them in their examinations were the extent of self-study, self motivation and previous achievement in the examination. Among high performers, the external factors which hampered their classroom concentration were tiredness due lack of adequate sleep, hunger, emotions and distraction by peers. The external factors which affected their examination performance were stress and emotions, inadequate time to answer during examination, too much extracurricular

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activities at the time of examination, computer games and the internet.

Among low performers the internal factors which affected classroom concentration were their power of concentration and poor health condition. The internal factors which affected their examination performance were the level of understanding of the subject, inadequate revision, inadequate sleep, health status and irregular meal patterns. Among low performers, the external factors which affected their classroom concentration were noise made by their peers in the classroom, break time between the classes and adverse classroom set up such as dull projectors and uncomfortable chairs etc. The time and place of examination also affected their performance in the examination.

Certain factors which were found to commonly affect classroom concentration and performance in examination were the noise and cold temperature of the examination hall, family problems and peer problems.

This study thus identifies three factors (place of study, peer support and extra-curricular activities) that significantly influence student performance and so can be used by faculty mentors to counsel and motivate poor performers to improve their performance early in their medical student days. Many modifiable

factors which influence or/and affect classroom concentration and performance at examinations were also identified. These can be used to create a positive learning environment in the institution by the academic leaders and administrators of the institution. This study also demonstrates that by identifying factors contributing to high performance, we can find solutions to help the low performers.

### **Contribution by authors**

All three authors contributed to design and conduct of the study. The first author wrote the draft and analyzed the data, the second author analyzed the data and reviewed the draft while the third author provided guidance on study methods and critically revised the manuscript.

### **Conflict of interest**

Authors declare no conflict of interest.

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