

## ***Self-regulated learning* Mahasiswa kedokteran di Indonesia dalam Implementasi Strategi Pembelajaran Student-centered Learning**

### **ABSTRAK**

**Latar Belakang:** *Self-regulated learning* (SRL) merupakan kompetensi kunci dalam pendidikan kedokteran dan menjadi fondasi keberhasilan implementasi *student-centered learning* (SCL). Namun, SRL mahasiswa kedokteran di Indonesia belum dipahami secara menyeluruh, terlebih dalam konteks budaya akademik yang hierarkis, beban kurikulum yang tinggi, dan sistem asesmen yang dominan berorientasi nilai. Penelitian yang komprehensif diperlukan untuk memetakan kemampuan SRL dan faktor-faktor yang memengaruhinya serta menyusun rekomendasi pembelajaran adaptif berbasis evidensi. Penelitian ini bertujuan untuk mengetahui kemampuan SRL mahasiswa pendidikan dokter di Indonesia, menganalisis faktor-faktor yang memengaruhi SRL dalam implementasi SCL, serta menyusun rekomendasi pembelajaran adaptif untuk memperkuat SRL.

**Metode:** Penelitian menggunakan desain tiga tahap. Tahap pertama adalah *scoping review* terhadap 41 artikel internasional untuk memetakan konsep, instrumen, dan faktor SRL. Tahap kedua adalah studi kuantitatif menggunakan *Motivated Strategies for Learning Questionnaire* (MSLQ) pada 380 mahasiswa dari delapan institusi kedokteran. Hasil dianalisis menggunakan statistik deskriptif dan uji komparatif. Tahap ketiga adalah studi kualitatif melalui diskusi kelompok terarah (FGD) untuk mendalami pengalaman belajar mahasiswa. Hasil dianalisis dengan *thematic analysis*. Hasil analisis kedua data kemudian diintegrasikan menggunakan pendekatan *convergent parallel mixed-methods*.

**Hasil:** Kemampuan SRL mahasiswa berada pada kategori sedang. Mahasiswa memiliki motivasi belajar tinggi, namun strategi elaboratif, critical thinking, regulasi metakognitif, dan help-seeking masih terbatas. Faktor yang memengaruhi SRL mencakup motivasi dan efikasi diri (internal), kualitas fasilitasi tutor dan dinamika kelompok (eksternal), serta beban kurikulum, asesmen yang cenderung sumatif, dan budaya akademik hierarkis (kontekstual). Integrasi temuan kuantitatif–kualitatif menunjukkan konvergensi kuat pada sebagian besar domain SRL. Rekomendasi pembelajaran adaptif yang dihasilkan mencakup enam pilar: penguatan peran tutor, perbaikan sistem umpan balik, penataan asesmen, integrasi modul SRL, optimalisasi peer learning, dan pembangunan lingkungan pembelajaran non-hierarkis.

**Kesimpulan:** Profil SRL mahasiswa kedokteran Indonesia menunjukkan motivasi tinggi namun kemampuan regulasi belajar mendalam yang belum optimal. Pengembangan SRL memerlukan pendekatan komprehensif yang mencakup perubahan strategi fasilitasi, asesmen, dinamika kelompok, serta budaya akademik. Rekomendasi yang dihasilkan bagi institusi pendidikan kedokteran adalah meningkatkan efektivitas SCL dan membangun pembelajaran adaptif berbasis SRL.

**Kata kunci:** *self-regulated learning*, *student-centered learning*, pendidikan kedokteran, MSLQ, *mixed methods*, rekomendasi pembelajaran

## Self-Regulated Learning among Indonesian Medical Students in the Context of Student-Centered Learning Implementation

### ABSTRACT

**Background:** Self-regulated learning (SRL) is a core competency in medical education and a critical foundation for the successful implementation of student-centered learning (SCL). However, SRL among Indonesian medical students has not been comprehensively examined, particularly within a learning culture characterized by hierarchical norms, heavy curricular demands, and high-stakes assessment practices. A rigorous investigation is needed to map students' SRL abilities, explore influencing factors, and develop evidence-based adaptive learning recommendations tailored to the Indonesian context. These studies aimed to assess the level of SRL among Indonesian undergraduate medical students, analyze factors influencing SRL within SCL environments, and develop adaptive learning recommendations to strengthen SRL in medical education.

**Methods:** This study employed a three-stage research design. Stage 1 was a scoping review of 41 international studies to map SRL concepts, instruments, and influencing factors in medical education. Stage 2 was a quantitative study using the Motivated Strategies for Learning Questionnaire (MSLQ) involving 380 students from eight medical schools. Data were analyzed using descriptive statistics and comparative tests. Stage 3 consisted of qualitative exploration through focus group discussions (FGDs) to examine students' learning experiences. Data were analyzed using thematic analysis. Both quantitative and qualitative findings were then integrated through a convergent-parallel mixed-methods approach.

**Results:** Students' SRL abilities were at a moderate level overall. They demonstrated strong motivation but limited use of elaboration, critical thinking, metacognitive regulation, and help-seeking strategies. Influencing factors included motivation and self-efficacy (internal); tutor facilitation quality and peer dynamics (external); and heavy curriculum load, high-stakes assessments, and hierarchical academic culture (contextual). Integration of quantitative and qualitative data showed strong convergence across most SRL domains. The study produced a six-pillar adaptive learning recommendation framework comprising tutor capacity strengthening, improved feedback practices, assessment redesign, integrated SRL modules, optimized peer learning, and fostering psychologically safe, non-hierarchical learning environments.

**Conclusion:** Indonesian medical students exhibit high motivation but have not yet developed optimal deep-learning and self-regulatory strategies. Enhancing SRL requires systemic improvements in facilitation, feedback, assessment, group dynamics, and educational culture. The recommendations generated in this study offer a practical, evidence-informed roadmap for strengthening SCL implementation and cultivating SRL in undergraduate medical education.

### Keywords:

self-regulated learning; student-centered learning; medical education; MSLQ; mixed methods; adaptive learning recommendations