How does the students' self-directedness in learning evolve through the years of undergraduate medical education?

Introduction
Self-directed learning (SDL) is the ability of a learner to recognize their learning needs and the capability to initiate and direct their own learning. In order to maintain the required level of competence through their career, medical professionals must develop skills for SDL. It is important for medical students to learn how to direct their own learning prior to graduation in order to ease the transition from structured medical school education towards less structured clinical educational environments. (1,2)

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Methods
All students of the Faculty of Medicine, University of Maribor were invited to participate in the study through the self-rating scale for self-directed learning (SRSSDL) questionnaire. (3) SRSSDL was translated forwards and backwards in the Slovenian language. The preliminary data analysis included undergraduate medical students, from preclinical to clinical levels (years one through six). The Likert scale based questionnaire covered four areas of SDL: awareness, learning strategies, learning activities and evaluation.

Results
Internal scale consistency for SRSSDL was 0.802. An analysis shows SDL does not differ significantly based on gender (p=0.396). There was a significant increase in SDL total score between beginning year 1 (n=27) and year 6 (n=13) students (p=0.016). A notable change in SDL between successive years occurs from year 1 to year 2 (p=0.28). Between years 1 and 6 there is a statistically significant increase in SRSSDL subscales Awareness (p=0.27) and Learning activities (p=0.30).

Discussion
There are no significant differences in SDL based on students' gender. Most evident changes in SDL are shown between first and second year students. The adjustment from high school to university teaching methods has a probable interplay in the SDL advancement. In the following years minimal changes occur. Transition to clinical courses results in slightly lower, probably more realistic SDL scores. In later years students successfully adapt to change and become more self-directed. A progress in Awareness and Learning activities domains is evident between year 1 and year 6 students, while Learning skills and Evaluation domains show less notable increase during the undergraduate medical education.

Conclusions
Data analysis shows student SDL awareness is independent of gender and demonstrates a significant increase in total scores between first and last year medical students. Careful consideration must be given towards the understanding of SDL levels students have across the undergraduate medical curricula. Subsequently, potential opportunities for improvement of SDL should be explored, followed by the implementation of adequate interventions.

References

STUDENTS’ SDL LEVELS

<table>
<thead>
<tr>
<th>Year</th>
<th>Average total score (SRSSDL)</th>
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<tbody>
<tr>
<td>Year 1</td>
<td>140</td>
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<tr>
<td>Year 2</td>
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<td>Year 3</td>
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<td>Year 5</td>
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<td>Year 6</td>
<td>190</td>
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</table>
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