The Relationship Between Self-Directed Learning Readiness and Self-Regulation Skills in Entering Medical Students

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Introduction & Background

- Self-Directed Learning - attitudes, skills, and characteristics that comprise an individual’s ability to manage his/her own learning
  - Relates to life-long learning

- Self-Regulation - metacognitive and control strategies to manage studying and learning
  - Relationship to academic success: two self-regulation study skills were stronger predictors of medical student academic difficulty than academic aptitude: Time Management & Self-Testing*
  - We are collaborating with this group at Texas A&M on an extension of their research (Funded by an SGEA RIME Grant)

- We are investigating the relationship between these two concepts (Self-Direction and Self-Regulation)

Instruments

- Learning and Study Strategies Inventory (LASSI)
  - Students’ awareness about and use of learning and study skills, related to 3 Factors of strategic learning (each broken down into Scales as shown):
    - Skill – Information Processing, Selecting Main Ideas, Creating Study Aids
    - Will – Motivation, Anxiety, Attitude
    - Self-Regulation – Time Management, Test-Taking, Self-Testing, Concentration

- Self-Directed Learning Readiness Scale (SDLRS)
  - Students’ readiness for Self-Directed Learning


Methods

- At orientation, incoming medical students take the LASSI & SDLRS

- Analyses performed:
  - Bivariate correlation between LASSI Factors and Scales and SDLRS scores
  - Ordinary least-squares regression to measure ability of LASSI Factors and/or Scales to predict SDLRS scores
## SDLRS Results

<table>
<thead>
<tr>
<th>Population</th>
<th>Average SDLRS Score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year 1 Medical Students (Current Study)</strong></td>
<td>237 (n = 82)</td>
</tr>
<tr>
<td><strong>Year 3 Medical Students</strong></td>
<td>235 (n = 182)</td>
</tr>
<tr>
<td><strong>College Students and Professionals</strong></td>
<td>228</td>
</tr>
<tr>
<td><strong>General Adult Population</strong></td>
<td>214</td>
</tr>
</tbody>
</table>

References:


All three LASSI Factors are moderately correlated with SDLRS scores

<table>
<thead>
<tr>
<th>LASSI Factors</th>
<th>Correlation (R²)*</th>
<th>Significance (p value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skill</td>
<td>0.596</td>
<td>0.000</td>
</tr>
<tr>
<td>Will</td>
<td>0.639</td>
<td>0.000</td>
</tr>
<tr>
<td>Self–Regulation</td>
<td>0.527</td>
<td>0.000</td>
</tr>
</tbody>
</table>

*Bivariate correlation
Relationship of LASSI Self-Regulation Scales and SDLRS

<table>
<thead>
<tr>
<th>Self–Regulation Scales</th>
<th>Correlation (R²)</th>
<th>Significance (p value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time Management</td>
<td>0.289</td>
<td>0.008</td>
</tr>
<tr>
<td>Self–Testing</td>
<td>0.278</td>
<td>0.011</td>
</tr>
<tr>
<td>Test–Taking</td>
<td>0.451</td>
<td>0.000</td>
</tr>
<tr>
<td>Concentration</td>
<td>0.365</td>
<td>0.001</td>
</tr>
</tbody>
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- Of the four LASSI Self-Regulation Scales:
  - Test-Taking was the most strongly correlated with SDLRS
  - Time Management and Self-Testing were weakly correlated with SDLRS
Regression Analysis

<table>
<thead>
<tr>
<th>LASSI Factors</th>
<th>Correlation Coefficients</th>
<th>Significance (p value)</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Skill</em></td>
<td>0.411</td>
<td>0.000</td>
</tr>
<tr>
<td><em>Will</em></td>
<td>0.324</td>
<td>0.002</td>
</tr>
<tr>
<td><em>Self-Regulation</em></td>
<td>0.110</td>
<td>0.295</td>
</tr>
</tbody>
</table>

- All three LASSI Factors combined accounted for 49.5% of the explained variance (p<0.00) in the SDLRS scores
- The LASSI Factor of Self-Regulation was non-contributory
Conclusions

- Results suggest that Self-Directed Learning Readiness and Self-Regulation are related

- LASSI Self-Regulation Factor did not predict SDLRS Scores (Skill and Will Factors were actually more predictive)

- LASSI Self-Regulation Scale of Test-Taking had the strongest correlation with SDLRS Scores
Discussion

- Self-Directed Learning Readiness may require that students first develop a basic skill set to complete learning tasks (Skill)

- This may help them set goals and stay motivated (Will)

- Examining learning skills may be a good start towards predicting academic difficulty and providing interventions to improve students’ skills and readiness for Self-Directed Learning
Thank you!

Questions?

Please feel free to contact us:
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If you are interested in more info or collaboration, please join the SGEA Student Academic Enhancement (SAE) Special Interest Group by contacting one of us!