

The T-SQsrl Questionnaire: A Tool for Assessing Self-Regulated Learning Skills in Teachers and Students

Citation Guidelines

How to Cite This Questionnaire (APA 7th Edition)

When using the T-SQsrl questionnaire in research, please cite both 2025 papers as follows:

For the questionnaire itself and the primary research and validation:

[Arvatz, A., Peretz, R. & Dori, Y.J. \(2025\) Self-regulated learning and reflection: a tool for teachers and students. *Metacognition & Learning* 20, 15. <https://doi.org/10.1007/s11409-025-09415-3>](https://doi.org/10.1007/s11409-025-09415-3)

For the theoretical framework and implementation:

[Arvatz, A., Hadas, B., Waitzman, R., & Dori, Y. J. \(in press\). Putting self-regulated learning and teaching into practice: insights from two science teachers and their students. *Journal of Instructional Science*. <http://doi.org/10.1007/s11251-025-09719-6>](http://doi.org/10.1007/s11251-025-09719-6) *Education and Technology*.

For application in the context of STEM and special ED:

[Arvatz, A., & Dori, Y. J. \(2024\). Science and Mathematics High School Students' Perceptions of Self-Regulated Learning. *International Journal of Science and Mathematics Education*. <https://doi.org/10.1007/s10763-024-10516-9>](https://doi.org/10.1007/s10763-024-10516-9)

When referencing the questionnaire in your manuscript:

First mention: "...using the Teachers/Students Questionnaire of Self-Regulated Learning (T-SQsrl; Arvatz & Dori, 2024)..." Subsequent mentions: "...responses on the T-SQsrl showed..."

Ethical Considerations and Usage Requirements

Ethical Approval: Before administering the T-SQsrl questionnaire, researchers must:

Obtain approval from their institutional review board (IRB) or ethics committee

Ensure compliance with local data protection regulations (e.g., GDPR, FERPA)

Follow institutional guidelines for research involving human subjects

Informed Consent:

For teachers: Obtain written informed consent, emphasizing voluntary participation and the right to withdraw. For students: Secure both parental/guardian consent and student assent, especially for participants under 18. Clearly explain the research purpose, data use, confidentiality measures, and participants' rights

Anonymity and Confidentiality:

The questionnaire should be administered anonymously when used for research purposes

Ensure no identifying information can be linked to individual responses

Store data securely and in compliance with institutional data management policies

Permission to Use:

Researchers are encouraged to contact the authors before use for guidance on proper implementation and possible collaborations

No special permission is required for academic research, but citation is mandatory

For commercial use, please contact the authors for explicit permission

Cultural and Linguistic Adaptation:

When translating to other languages, follow established translation protocols (e.g., back-translation)

Conduct validation studies appropriate for your target population

Consider cultural adaptation beyond mere translation. Researchers are encouraged to consult authors in this matter.

Reporting: When publishing results, researchers should:

Report reliability coefficients obtained in their sample

Describe any modifications made to the original questionnaire

Include information about the sample characteristics and context

Acknowledge the original developers and cite appropriately

Contact for Permissions and Questions

Primary Contact: Dr. Avivit Arvatz (avivit.arvatz@mail.huji.ac.il)

Institution: The Hebrew University of Jerusalem

Acknowledgment Statement

When using this questionnaire, please include the following acknowledgment in your publication:

We acknowledge Dr. Avivit Arvatz and Prof. Yehudit Judy Dori for developing the T-SQsrl questionnaire and making it available to the research community.

Introduction and Context

The T-SQsrl (Teachers/Students Questionnaire of Self-Regulated Learning) was developed and validated as part of doctoral research conducted at the Technion - Israel Institute of Technology (Arvatz, 2024). The questionnaire is based on the Self-Regulated Learning Microanalysis Questionnaire (SRLMQ) by Littlejohn et al. (2016), adapted specifically for Hebrew-speaking teachers and students in Israeli educational contexts.

Development Process

The T-SQsrl was developed through a three-phase validation process:

- 1. Translation and Cultural Adaptation:** The original 42-item SRLMQ was translated from English to Hebrew and culturally adapted for Israeli educational contexts
- 2. Psychometric Validation:** Exploratory and confirmatory factor analyses were conducted with 156 teachers and 208 students
- 3. Practical Implementation:** The questionnaire was field-tested in diverse educational settings across Israel

Key Features

Dual Versions: Separate questionnaires for teachers (T-TQsrl, 31 items) and students (S-SQsrl, 15 items)

Validated Structure: Confirmed factor structure through rigorous statistical analysis

Cultural Sensitivity: Adapted for Hebrew-speaking educational contexts

Practical Length: Student version shortened based on teacher feedback regarding attention spans

Important Guidelines for Researchers

Translation and Adaptation Considerations

When adapting this questionnaire for other languages and cultures, researchers should:

1. Linguistic Adaptation:

Perform back-translation to ensure semantic equivalence

Pay attention to educational terminology that may vary across cultures

Consider age-appropriate language for student populations

2. Cultural Considerations:

Adapt items to fit local educational contexts and practices

Consider cultural differences in teacher-student relationships

Account for varying educational system structures

3. Psychometric Validation:

Conduct exploratory factor analysis with initial samples

Perform confirmatory factor analysis with separate validation samples

Assess reliability and validity in the target population

4. Scale Considerations:

Note that Item T-SQsrl-33 has reversed scoring

Maintain consistent 5-point Likert scale format

Ensure clear instructions regarding scale direction

Recommended Sample Sizes

Exploratory Factor Analysis: Minimum 100 participants per population

Confirmatory Factor Analysis: Minimum 200 participants per population

Practical Implementation: Consider diverse educational contexts and demographics

Rationale for Sample Size Recommendations: The minimum sample sizes are based on established guidelines for factor analysis (Comrey & Lee, 1992; Tabachnick & Fidell, 2013). For exploratory factor analysis, a ratio of at least 5-10 participants per questionnaire item is recommended, with absolute minimums of 100-200 participants. For confirmatory factor analysis, larger samples (200+ participants) provide more stable parameter estimates and better model fit assessment. These recommendations ensure adequate statistical power for detecting meaningful factor structures and reliable parameter estimation.

Note on Sampling Strategy: In our original validation study, we used convenience sampling of teachers and students who participated in SRL professional development programs. However, these programs attracted participants from diverse sectors and geographical regions across Israel, including secular, religious, and Arab schools from both central and peripheral areas. This diversity in our convenience sample contributed to the questionnaire's validity across different educational contexts. Researchers adapting this questionnaire should similarly strive for demographic and contextual diversity within their samples, even when using convenience sampling methods.

Scoring and Administration

Scoring Scale

Range: 1-5 Likert scale

Anchors:

1 = "Usually untrue for me" / "5, בדורך כלל לא נכון לגביי" = "Always true for me" / "תמיד נכון לגביי"

Exception: Item T-SQsrl-33 uses reverse scoring

Factor Scores

Calculate dimension scores by averaging items within each factor:

Teachers: 6 dimensions (Goal-setting, Self-efficacy, Help-seeking, Elaboration, Task strategies, Reflection)

Students: 5 dimensions (Goal-setting, Help-seeking, Elaboration, Reflection for action, Reflection on action)

Administration Guidelines

Duration: Teachers: 15-20 minutes, Students: 8-12 minutes

Format: Online or paper-based administration

Anonymity: Ensure participant anonymity when used for research purposes

Consent: Obtain appropriate consent, especially parental consent for minors

Open-Ended Reflective Question (Teachers Only)

The TQsrl includes one open-ended reflective question designed to triangulate teachers' self-assessment of reflection skills with external assessment:

Question: "What was your primary motivation to take this PD?"

This question allows researchers to assess the quality of teachers' reflective responses using Van-Manen's (1977) reflection levels:

Technical Level (Low): Descriptive responses about events

Applicative Level (Intermediate):

Commentary: Interpretations of experience

Affective: Emotional responses to learning

Critical Level (High): Analysis of advantages and disadvantages, pros and cons

Example responses by level:

Technical: "On the one hand, I learn new things that I really want to implement. On the other hand, I don't always get around to learning and implementing them properly."

Applicative/Commentary: "Sometimes you can tell the problem is not just a couple of students, but the whole class. You begin thinking - maybe it's me, not explaining adequately."

Applicative/Affective: "When I work with a group I'm already familiar with, I enjoy learning together, teaching my peers, learning from them, and creating a collaborative product."

Critical: "Teamwork has the advantage of sharing ideas and workload. The disadvantage is being limited by the peers' schedules."

Psychometric Properties

Reliability (Cronbach's α)

Teachers (N=154):

Goal-setting: 0.84

Self-efficacy: 0.92

Help-seeking: 0.88

Task strategies: 0.85

Elaboration: 0.74

Reflection: 0.77

Overall: 0.94

Students (N=208 for questionnaire validation):

Goal-setting: 0.80

Help-seeking: 0.86

Elaboration: 0.82

Reflection on action: 0.73

Reflection for action: 0.72

Overall: 0.91

Validity

Both versions demonstrated good construct validity through confirmatory factor analysis, with acceptable model fit indices in diverse educational contexts. See below references for additional information.

Note on Sampling Strategy: In our original validation study, we used convenience sampling of teachers and students who participated in SRL professional development programs. However, these programs attracted participants from diverse sectors and geographical regions across Israel, including secular, religious, and Arab schools from both central and peripheral areas. This diversity in our convenience sample contributed to the questionnaire's validity across different educational contexts. Researchers adapting this questionnaire should similarly strive for demographic and contextual diversity within their samples, even when using convenience sampling methods.

Original SRLMQ Reference: Littlejohn, A., Hood, N., Milligan, C., & Mustain, P. (2016). Learning in MOOCs: Motivations and self-regulated learning in MOOCs. *The Internet and Higher Education*, 29, 40-48.

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The T-SQsrl Questionnaire: A Tool for Assessing Self-Regulated Learning Skills in Teachers and Students

Questionnaire Items

Item_Code	Population	Dimension	Dimension_Item	Hebrew_Text	English_Translation	Scale_Direction	Notes
TQsrl-1	Teachers	Goal-setting	1	אני מציבה לעצמי מטרות מדויקות ללמידה בהשתלמות הנוכחית	I set measurable goals for my learning in this professional development	Normal	No student equivalent
TQsrl-2	Teachers	Goal-setting	2	אני מציבה מטרות קצרות טווח בלמידה (לאותו יום או השבוע), כמו גם מטרות ארוכות טווח (למשך ההשתלמות, או הסמסטר כולו למשל)	I set short-term goals for learning (for the same day or week), as well as long-term goals (for the duration of the course, or the entire semester, for example)	Normal	Equivalent: SQsrl-2
TQsrl-3	Teachers	Goal-setting	3	כשאני לומדת, אני מציבה מטרות כדי לעזור לעצמי לנהל את זמני הלימוד שלי או את הלמידה שלי באופן כללי	When I study, I set goals to help myself manage my study time or my learning in general	Normal	No student equivalent
TQsrl-4	Teachers	Goal-setting	4	אני מציבה לעצמי מועדי סיום (דד-ליין) מציאותיים	I set realistic deadlines for myself	Normal	Equivalent: SQsrl-4
TQsrl-8	Teachers	Goal-setting	5	אני מארגנת את הלמידה שלי כך שאוכל להשיג את המטרות שלי בצורה הטובה ביותר	I organize my learning so I can achieve my goals in the best way possible	Normal	No student equivalent
TQsrl-11	Teachers	Goal-setting	6	הלמידה בהשתלמות הזאת מאוד חשובה לי	Learning in this professional development is very important to me	Normal	Moved from Elaboration in CFA; No student equivalent
TQsrl-34	Teachers	Goal-setting	7	הדבר שהכי מספק אותי בהשתלמות הזו, הוא להבין את מה שאנחנו לומדים בצורה יסודית ככל האפשר	The most satisfying thing for me in this course is trying to understand what we learn as thoroughly as possible	Normal	Moved from Reflection in CFA; No student equivalent
TQsrl-5	Teachers	Self-efficacy	1	אני שואלת את עצמי שאלות לגבי מה שאלמד, עוד לפני שהתחלתי ללמוד	I ask myself questions about what I will learn, even before we started learning	Normal	No student equivalent
TQsrl-12	Teachers	Self-efficacy	2	אני יכולה להתמודד עם למידה של דברים חדשים, משום שאני יודעת שאני יכולה להתמקד על היכולות שלי	I can deal with learning new things, because I know I can rely on my abilities	Normal	No student equivalent
TQsrl-13	Teachers	Self-efficacy	3	כשעשיתי מאוד מאתגר אותי, אני יכולה לחשוב על דרכים שונות כדי להתגבר על הקושי הזה	When something very challenging confronts me, I can think of different ways to overcome this difficulty	Normal	No student equivalent
TQsrl-14	Teachers	Self-efficacy	4	אני מרגישה שמה שזה לא יהיה שאצטרך ללמוד - אוכל להתמודד איתו	I feel that whatever I need to learn - I will be able to cope with it	Normal	No student equivalent
TQsrl-15	Teachers	Self-efficacy	5	התנסויות העבר שלי הכינו אותי היטב להתגבר על דברים חדשים בלמידה	My past experiences have prepared me well for new learning challenges	Normal	No student equivalent
TQsrl-16	Teachers	Self-efficacy	6	יש לי את הכישורים כדי לעמוד במטרות שהצבתי לעצמי ללמידה בזמן זה	I have the skills to meet the goals I set for myself for learning at this time	Normal	No student equivalent
TQsrl-17	Teachers	Self-efficacy	7	אני מרגישה מוכנה להצליח בהשתלמות הנוכחית	I feel ready to succeed in the current professional development	Normal	Equivalent: SQsrl-17 (moved to Goal-setting in students)
TQsrl-30	Teachers	Help-seeking	1	כשאני לא מבין משהו, אני מבקשת עזרה מאחרים	When I don't understand something, I ask others for help	Normal	Equivalent: SQsrl-30
TQsrl-31	Teachers	Help-seeking	2	אני משתדלת לזהות אנשים אחרים שאוכל לבקש מהם עזרה בעת הצורך	I try to identify other people from whom I can ask for help when needed	Normal	Equivalent: SQsrl-31
TQsrl-32	Teachers	Help-seeking	3	אני מבקשת מאחרים מידע נוסף כאשר אני זקוקה לו	I ask others for additional information when I need it	Normal	No student equivalent
TQsrl-33	Teachers	Help-seeking	4	אפילו כשיש לי בעיה, אני מעדיפה לעבוד לבד	Even when I have a problem, I prefer to work alone	Reverse	REVERSED SCORING; No student equivalent
TQsrl-18	Teachers	Elaboration	1	אני מנסה לתרגם מידע חדש למילים שלי	I try to translate new information into my own words	Normal	No student equivalent
TQsrl-19	Teachers	Elaboration	2	אני שואלת את עצמי במה מה שאני לומדת מתקשר למה שאני כבר יודעת, ובאיזה אופן	I ask myself how what I am learning relates to what I already know, and in what way	Normal	No student equivalent
TQsrl-22	Teachers	Elaboration	3	אני חושבת על דוגמאות משלי כדי להפוך את המידע למשמעותי יותר	I think of my own examples to make the information more meaningful	Normal	Equivalent: SQsrl-22
TQsrl-20	Teachers	Task strategies	1	כשאני לא מצליחה להתקדם בלמידה, אני משהה את אסטרטגיות הלמידה שלי	When I'm not making progress in learning, I change my learning strategies	Normal	Equivalent: SQsrl-20 (moved to Goal-setting in students)
TQsrl-26	Teachers	Task strategies	2	אני מנסה ליישם את הניסיון הקודם שלי כשאני לומדת	I try to apply my previous experience when I learn	Normal	No student equivalent
TQsrl-27	Teachers	Task strategies	3	בזמן הלמידה אני מתייחסת לחומרי הלמידה שאני מוצאת כנקודות מוצא, ואז אני מפתחת רעיונות חדשים שבנויים עליהם	During learning I refer to the learning materials I find as a starting point, then I develop new ideas based on them	Normal	No student equivalent
TQsrl-28	Teachers	Task strategies	4	אני מנסה לחשוב על רעיונות משלי בהקשר למה שאני לומדת בהשתלמות	I try to think of my own ideas in the context of what I am learning in the course	Normal	Equivalent: SQsrl-28
TQsrl-29	Teachers	Task strategies	5	כשאני קוראת או שומעת טיעונים, אני חושבת על אפשרויות אחרות למה שטוען בהם	When I read or hear arguments, I think about other possibilities for what is claimed in them	Normal	Equivalent: SQsrl-29
TQsrl-37	Teachers	Reflection	1	כשאני מסיימת משימה, אני יודעת מיד למר כמה למדתי ממנה	When I finish a task, I can immediately say how much I learned from it	Normal	No student equivalent
TQsrl-38	Teachers	Reflection	2	כשאני מסיימת ללמוד, אני שואלת את עצמי אם היו דרכים אחרות לעשות את הדברים	When I finish learning, I ask myself if there were other ways to do things	Normal	Equivalent: SQsrl-38
TQsrl-39	Teachers	Reflection	3	לאחר שאני מסיימת ללמוד, אני חושבת על מה שלמדתי	After I finish learning, I think about what I learned	Normal	Equivalent: SQsrl-39
TQsrl-40	Teachers	Reflection	4	אני חושבת לעיתים קרובות על האופן שבו מה שאני לומדת משתלב ב"תמונה הגדולה יותר" של העבודה שלי	I often think about how what I am learning fits into the "bigger picture" of my work	Normal	Equivalent: SQsrl-40 (moved to Reflection for action in students)
TQsrl-42	Teachers	Reflection	5	אני משתדלת להבין איך מה שלמדתי משפיע על העבודה שלי	I try to understand how what I learned affects my work	Normal	Equivalent: SQsrl-42
SQsrl-2	Students	Goal-setting	1	אני יכולה להעריך כמה זמן יקח לי לעשות כל משימה שאני מקבלת בבית הספר, ולתכנן בהתאם מתי לעשות	I can estimate how much time it will take me to do each task I receive at school, and plan accordingly when to do it	Normal	Equivalent: TQsrl-2
SQsrl-4	Students	Goal-setting	2	כשאני רואה שאני לא עומדת בתכנון הזמנים שלי, אני מצליחה להזיז דברים ולעמוד ביעדים שהצבתי לעצמי	When I see that I'm not keeping to my time schedule, I manage to move things around and meet the goals I set for myself	Normal	Equivalent: TQsrl-4
SQsrl-20	Students	Goal-setting	3	כשאני לא מצליחה להתקדם במשימה שקבלתי בבית הספר, אני מנסה לעשות אותה בדרך אחרת	When I can't make progress on a task I received at school, I try to do it in a different way	Normal	Equivalent: TQsrl-20 (originally Task strategies in teachers)
SQsrl-17	Students	Goal-setting	4	אני מרגישה שאני מסוגלת להתמודד עם כל נושא/משימה/אתגר שינתן לי	I feel that I am capable of dealing with any topic/task/challenge they give me	Normal	Equivalent: TQsrl-17 (originally Self-efficacy in teachers)
SQsrl-30	Students	Help-seeking	1	כשאני לא מבין משהו, אני מבקשת עזרה מאחרים	When I don't understand something, I ask others for help	Normal	Equivalent: TQsrl-30
SQsrl-31	Students	Help-seeking	2	אני יודעת ממי אני יכולה לבקש עזרה (כיתה, חברים, משפחה)	I know from whom I can ask for help (class, friends, family)	Normal	Equivalent: TQsrl-31
SQsrl-22	Students	Elaboration	1	אני נותנת לעצמי דוגמאות משלי כדי להבין טוב יותר את מה שלמדתי	I give myself my own examples to better understand what I learned	Normal	Equivalent: TQsrl-22
SQsrl-28	Students	Elaboration	2	כשאני לומדת, אני חושבת על רעיונות חדשים משלי שקשורים לחומר שאנחנו לומדים	When I study, I think of new ideas of my own that are related to the material we are learning	Normal	Equivalent: TQsrl-28
SQsrl-29	Students	Elaboration	3	כשפותרים משהו בבית הספר, אני חושבת על הסברים אחרים שיכולים להתאים או על פתרונות אחרים לאותה הבעיה	When they explain something at school, I think of other explanations that might fit or other solutions to the same problem	Normal	Equivalent: TQsrl-29
SQsrl-7	Students	Reflection for action	1	כשאני עומדת להתחיל משימה שקיבלתי בבית הספר, אני חושבת באילו דרכים כדאי לי לפתור אותה, ומשתמשת בשיטות שכבר עבדו לי בעבר	When I'm about to start a task I received at school, I think about what ways I should solve it, and use methods that have already worked for me in the past	Normal	No teacher equivalent (TQsrl-7 not included)

SQsrl-24	Students	Reflection for action	2	אני מנסה לחשוב מה הקשר בין מה שאנחנו לומדים עכשיו, לבין הנושאים הקודמים שלמדנו	I try to think about the connection between what we are learning now and the previous topics we learned	Normal	No teacher equivalent (TQsrl-24 not included)
SQsrl-40	Students	Reflection for action	3	אני חושבת על האופן שבו הלימודים בבית הספר יעזרו לי בעתיד	I think about how school studies will help me in the future	Normal	Equivalent: TQsrl-40 (originally Reflection in teachers)
SQsrl-38	Students	Reflection on action	1	כשאני מסיימת משימה בבית הספר, אני חושבת אם יכולתי לעשות אותה בדרכים אחרות	When I finish a task at school, I think if I could have done it in other ways	Normal	Equivalent: TQsrl-38
SQsrl-39	Students	Reflection on action	2	אני חושבת על מה שלמדתי ממנה	After I finish a task at school, I think about what I learned from it	Normal	Equivalent: TQsrl-39
SQsrl-42	Students	Reflection on action	3	כשאני מסיימת משימה בבית הספר, אני משתדלת להבין איך מה שעשיתי עכשיו מקדם את ההצלחה שלי בלימודים	When I finish a task at school, I try to understand how what I did now advances my success in studies	Normal	Equivalent: TQsrl-42
SQsrl-22	Students	Elaboration	1	אני נותנת לעצמי דוגמאות משלי כדי להבין טוב יותר את מה שלמדתי	I give myself my own examples to better understand what I learned	Normal	
SQsrl-28	Students	Elaboration	2	כשאני לומדת, אני חושבת על רעיונות חדשים משלי שקשורים לחומר שאנחנו לומדים	When I study, I think of new ideas of my own that are related to the material we are learning	Normal	
SQsrl-29	Students	Elaboration	3	כשמסבירים משהו בבית הספר, אני חושבת על הסברים אחרים שיכולים להתאים או על פתרונות אחרים לאותה הבעיה	When they explain something at school, I think of other explanations that might fit or other solutions to the same problem	Normal	
SQsrl-7	Students	Reflection for action	1	כשאני עומדת להתחיל משימה שקיבלתי בבית הספר, אני חושבת באילו דרכים כדאי לי לפתור אותה, ומשתמשת בשיטות שכבר עבדו לי בעבר	When I'm about to start a task I received at school, I think about what ways I should solve it, and use methods that have already worked for me in the past	Normal	
SQsrl-24	Students	Reflection for action	2	אני מנסה לחשוב מה הקשר בין מה שאנחנו לומדים עכשיו, לבין הנושאים הקודמים שלמדנו	I try to think about the connection between what we are learning now and the previous topics we learned	Normal	

How to Cite This Questionnaire (APA 7th Edition)

When using the T-SQsrl questionnaire in research, please cite both 2025 papers as follows:

For the questionnaire itself and the primary research and validation:

Arvatz, A., Peretz, R., & Dori, Y.J. (2025) Self-regulated learning and reflection: a tool for teachers and students. *Metacognition & Learning* 20, 15. <https://doi.org/10.1007/s11409-025-09415-3>

For the theoretical framework and implementation:

Arvatz, A., Hadas, B., Waitzman, R., & Dori, Y.J. (in press). Putting self-regulated learning and teaching into practice: insights from two science teachers and their students. *Journal of Instrucational Science*. <http://doi.org/10.1007/s11409-025-09415-3>

For application in the context of STEM and special ED:

Arvatz, A., & Dori, Y.J. (2024). Science and Mathematics High School Students' Perceptions of Self-Regulated Learning. *International Journal of Science and Mathematics Education*. <https://doi.org/10.1007/s10763-024-105>