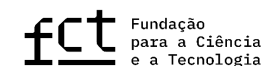


Peer Observation and Feedback Between Secondary Students for the Promotion of Self-regulated Learning

INTED, March 3, 2026

Daniela Pinto, Thiago Freires & Ana Cristina Torres

Centre for Research and Intervention in Education
Faculty of Psychology and Educational Sciences of the University of Porto, Portugal



INTRODUCING THE WAY PROJECT

WAY– ‘Who sAw You then and who sees you now: Promoting student self-regulated learning in the classroom through peer observation’



WHY? to deepen knowledge about the development of self-regulated learning of upper secondary school students through their involvement in peer observation and feedback during classes.



WHO? researchers from four universities, teachers and secondary education students of four partner schools from different regions in Portugal.

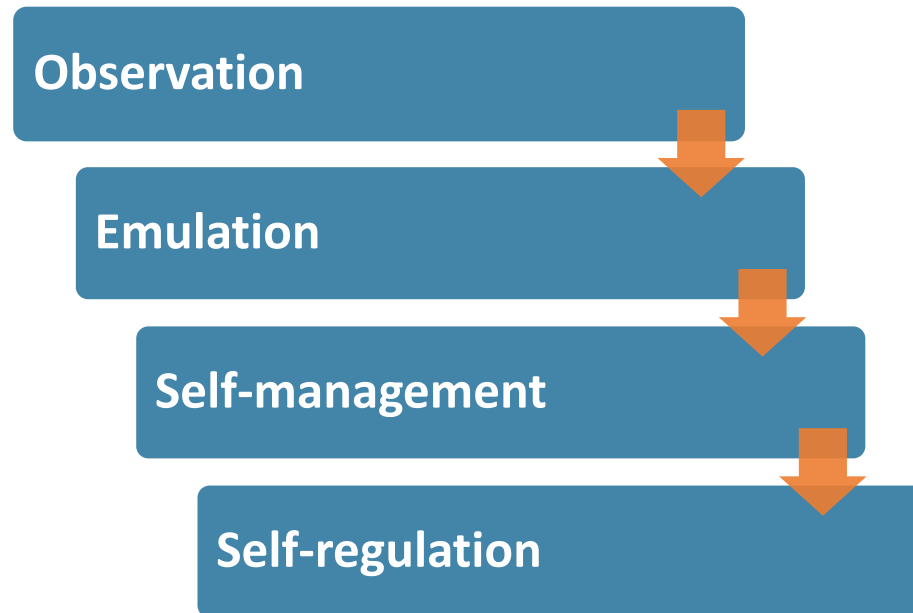


HOW? designing and validating a pedagogical model of student peer observation and feedback through a design-based research approach

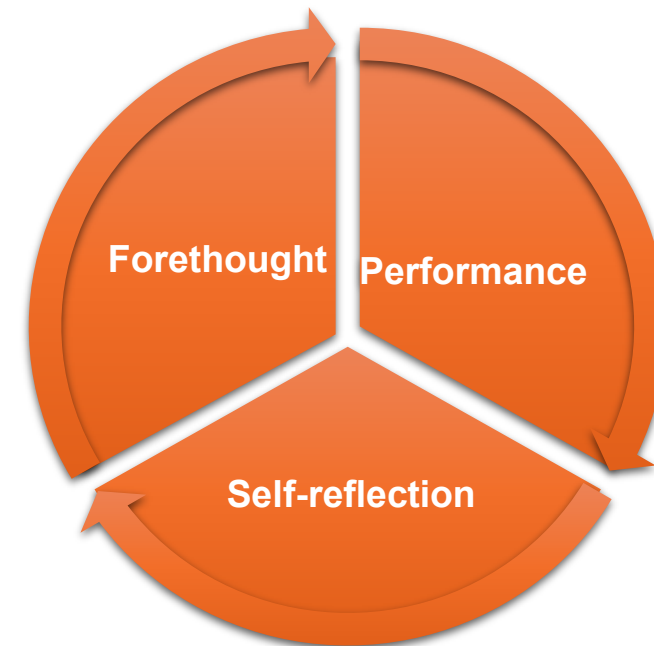
THE SELF-REGULATED LEARNING (SRL) DIMENSION

SELF-REGULATED LEARNING (SRL) as a **cyclical**, **multilevel**, and **multidimensional** process that involves **cognitive**, **metacognitive**, **motivational** or **affective**, and **attitudinal** aspects, and which is promoted in interaction with **co-regulation** and **socially shared regulation processes**.

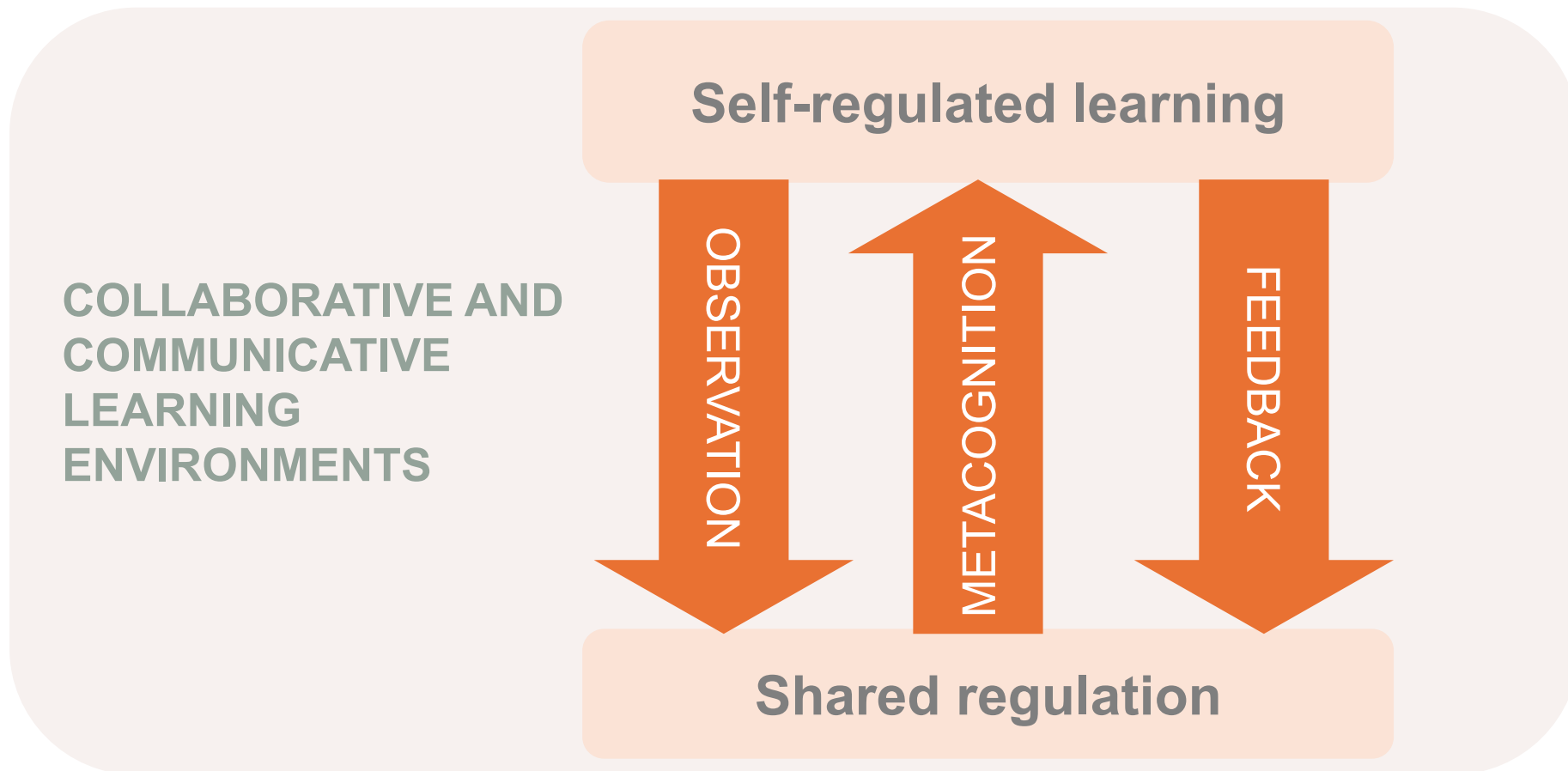
Zimmerman's multilevel model



Zimmerman's cyclical model



WHY STUDENT PEER OBSERVATION AND FEEDBACK?



THE WAY PARTICIPANTS



4 Schools



Teachers of various disciplines and students from the 8th grade (ISCED 2) and 10th grade (ISCED 3);

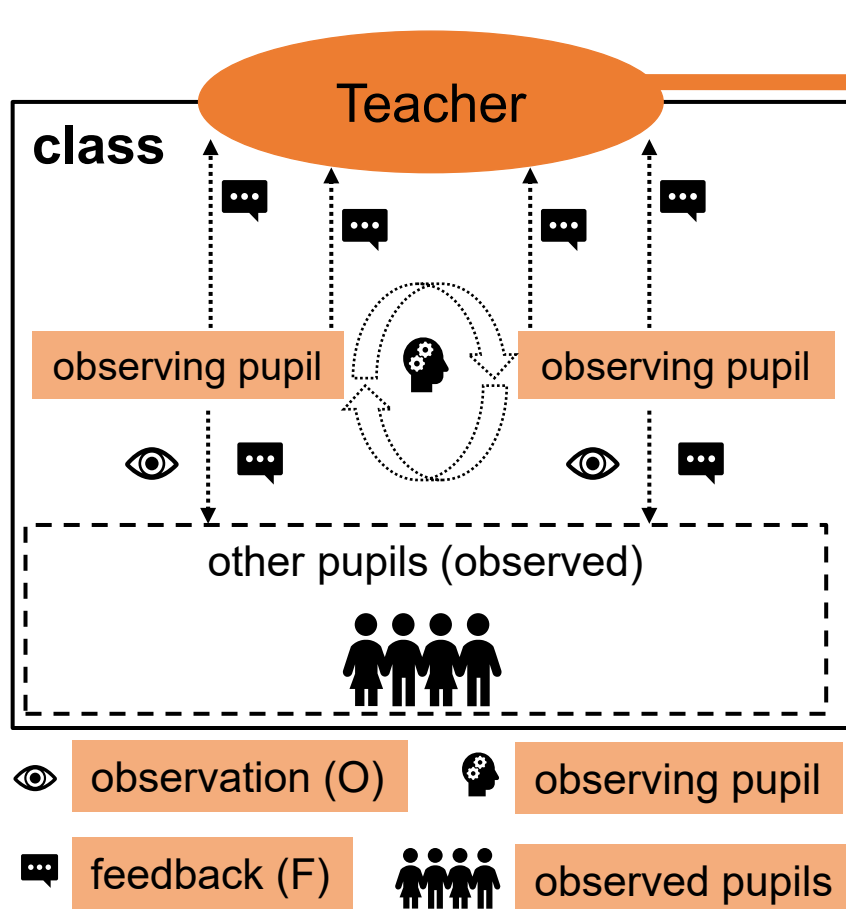


Each school has at least 4 teachers involved and 2 groups of each grade.

Participating School Clusters



THE PEER OBSERVATION AND FEEDBACK MODEL



Teacher training

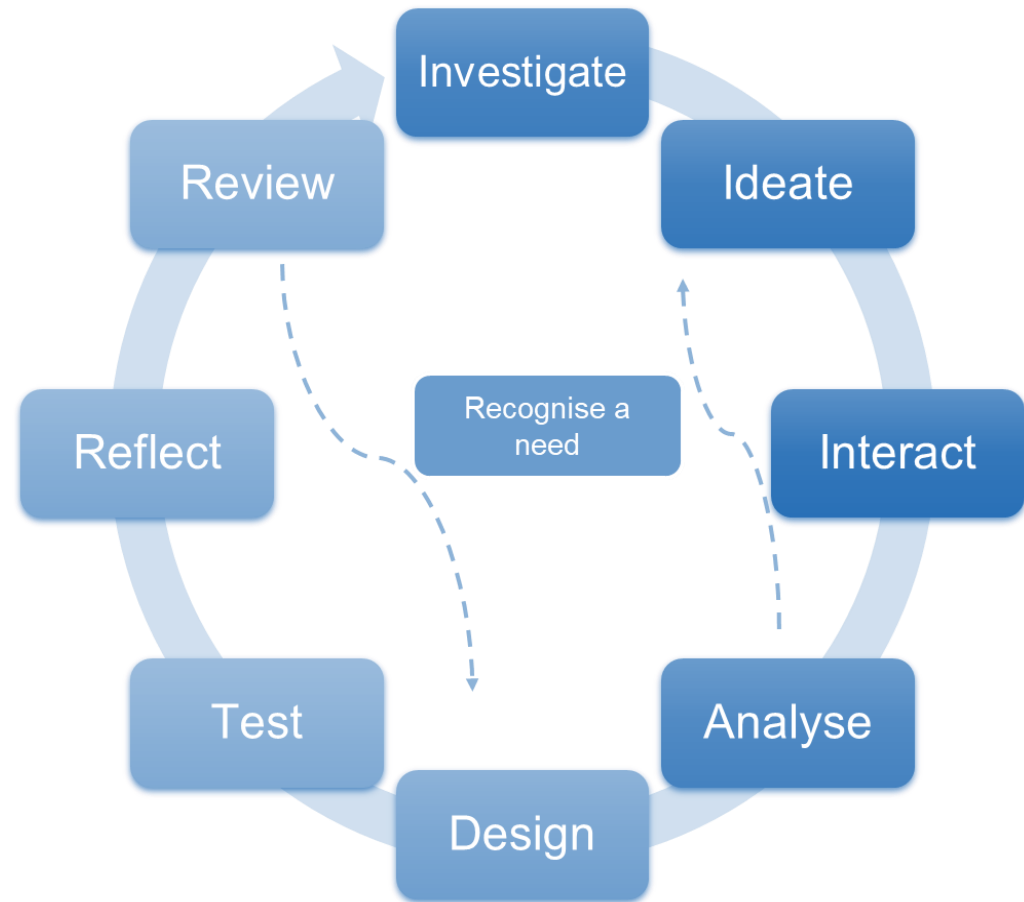
- supporting the development of the learning tasks carried out by the students during the peer observation;
- AND
- provide tools to support the processes of observation, reflection and feedback carried out by students during the development of activities.

METHODOLOGICAL FRAMEWORK

DESIGN-BASED RESEARCH

(McKenney, Nieveen, & van den Akker, 2006; Nobre & Martin-Fernandes, 2021)

- Potential to support the development of **more effective educational interventions**;
- Promotes opportunities for the production of **design principles, programmes or curriculum resources**;
- Provides **professional development** opportunities for the teachers involved.



FIRST CYCLE: FEB 2023 – SEP 2024


SECOND CYCLE: SEP 2024 – JAN 2026

DATA COLLECTION AND ANALYSIS

Participants

- 422 students, 22 teachers

Data sources

- 789 observation guides 
- 10 focus group discussions (93 students)

Data analysis

- Content analysis (deductive + inductive coding)

Two open-ended questions from the guide:

What did your peers do that made the learning task more difficult?

and

What did your peers do that helped them complete the learning task?

RESULTS – OBSERVATION GUIDES

SRL Phases

- Performance phase most visible to students:
 - Self-control
 - Time management
 - Help-seeking
- Forethought phase less recognized;
- Self-reflection phase was not mentioned.

| SRL phase/ Dimension | What hindered the execution of the learning task? | | What facilitated the execution of the learning task? | |
|--------------------------|---|--------|--|--------|
| Forethought Phase | 64 | 18,0% | 35 | 5,4% |
| Performance Phase | 167 | 46,9% | 264 | 40,6% |
| Self-Reflection Phase | 0 | 0,0% | 0 | 0,0% |
| Group Dynamics | 125 | 35,1% | 351 | 54,0% |
| Total | 356 | 100,0% | 650 | 100,0% |

RESULTS – OBSERVATION GUIDES

Group Dynamics

- Strong emerging dimension beyond individual SRL;
- Collaboration (major facilitator);
- Communication (both facilitator and barrier);
- Organization impacts task success;
- SRL deeply embedded in social interaction.

| Dimension | What hindered the execution of the learning task? | | What facilitated the execution of the learning task? | |
|---------------|---|-------|--|-------|
| Collaboration | 44 | 35,2% | 193 | 55,0% |
| Communication | 61 | 48,8% | 107 | 30,5% |
| Organization | 20 | 16,0% | 51 | 14,5% |

RESULTS – STUDENTS' PERCEIVED DEVELOPMENT

- **Greater metacognitive awareness**

“I think it’s possible to improve our autonomous work with this project because when we’re observers, we can understand what we’re doing while we’re working, and so we can identify the strategies we’re using at the moment and the ones we might use in the future to work better” (FGD4, Student C).

- **Increased autonomy and responsibility**

“I think yes, we’ve become more autonomous, because by seeing others’ mistakes, we can also improve our own” (FGD1, Student A).

- **Reduced exclusive dependence on teacher**

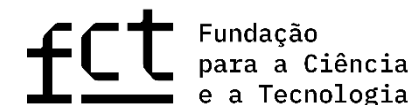
“Before the implementation of this project, it was always the teacher who cleared up our doubts or gave us feedback... and now we have our classmates helping each other” (FGD2, Student A).

- **Transfer of strategies beyond classroom**

“Before, I didn’t have the habit of studying every day and now I go home, I do some exercises on the subject, to stay on top of the material and be able to do the exercises more easily” (FGD3, Student C).

CONCLUSIONS

- SRL is simultaneously an **individual** and a **social** process.
- Peer observation and feedback **have potential to develop SRL skills** in collaborative contexts.
- **Observing peers:**
 - Increases **awareness** of planning, monitoring, and evaluation strategies.
 - Encourages **self-reflection** and **strategy adaptation**.
 - Functions as a “**mirror**” for self-assessment.
- **Collaborative feedback:**
 - Promotes **dialogue** and the **co-construction of knowledge**.
 - Strengthens **autonomy**, **self-efficacy**, and **persistence**.
 - Reduces exclusive **dependence on the teacher**.



FCT – Portuguese Foundation for Science and Technology, I.P., ref. 2022.01025.PTDC

THANK YOU!



<https://lead.uab.pt/way-en/>

Further inquiries to danielapinto@fpce.up.pt; tfreires@fpce.up.pt or acctorres@fpce.up.pt

REFERÊNCIAS

Bandura, A., & National Inst of Mental Health. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice-Hall, Inc.

Comunidades Europeias (2007). *Competências-chave para a Aprendizagem ao Longo da Vida – Quadro de Referência Europeu*, Recomendação do Parlamento Europeu e do Conselho, de 18 de Dezembro de 2006, publicada no Jornal Oficial da União Europeia em 30 de Dezembro 2006/L394. (http://eur-lex.europa.eu/LexUriServ/site/en/oj/2006/l_394/l_39420061230en00100018.pdf)

EC – European Commission (2019). Key competences for lifelong learning. Publications Office. <https://doi.org/doi/10.2766/569540>

Freires, T., & Lopes, A. (2024). Innovation through the implementation of technology in the context of school education: a systematic review. *London Review of Education*, 22(1), 37. <https://doi.org/10.14324/LRE.22.1.37>

Freires, T., Oliveira, A., Pinto, D. & Torres, A. C. (2024). *A dimensão da voz dos alunos e processos de autorregulação das aprendizagens: Breves apontamentos a partir do projeto WAY*. Comunicação apresentada no XVII Congresso da SPCE. Porto, Portugal.

Freires, T., Oliveira, A., Pinto, D., & Torres, A. C. (2025). Teacher agency in curriculum and pedagogical development: Reflections from a design research project about self-regulated learning in secondary schools. *The Curriculum Journal*, 00, 1–21. <https://doi.org/10.1002/curj.70010>

Hadwin, A. F., Järvelä, S., & Miller, M. (2011). Self-regulated, co-regulated, and socially shared regulation of learning. In B. J. Zimmerman & D. H. Schunk (Eds.), *Handbook of self-regulation of learning and performance* (pp. 65–84). Routledge/Taylor & Francis Group.

Järvelä, S., and Hadwin, A. F. (2013). New frontiers: regulating learning in CSCL. *Educational Psychology*, 48, 25–39. <https://doi.org/10.1080/00461520.2012.748006>

Ministério da Educação/Direção Geral da Educação (2017). *Perfil dos Alunos à Saída da Escolaridade Obrigatória*. Despacho n.º 6478/2017, 26 de julho.

McKenney, S., Nieveen, N. M., & van den Akker, J. (2006). Design research from a curriculum perspective. In J. van den Akker, K. Gravemeijer, S. McKenney, & N. Nieveen (Eds.), *Educational design research* (pp. 67–90). Routledge.

Mouraz, A., & Cosme, A. (2021). The ongoing curriculum reform in Portugal: Highlighting trends, challenges and possibilities. In M. Priestley, D. Alvunger, S. Philippou, & T. Soini (Eds.), *Curriculum making in Europe –policy and practice within and across diverse contexts* (pp. 77–98). Emerald Publishing Limited.

Mouraz, A., & Ferreira, I. (2021). Contributions of Multidisciplinary Peer Observation to Lecturers’ Reflective Practices. *Journal of Interdisciplinary Studies in Education*, 10(1), 41–58.

Mouraz, A., Pinto, D., & Torres, A. C. (2022) Effects of a model for multidisciplinary peer observation of teaching in teacher professional development and in nurturing a reflective school, *Reflective Practice*, <https://doi.org/10.1080/14623943.2022.2130225>

Nobre, A., & Martin-Fernandes, I. (2021). Abrir caminhos para a investigação em educação: Design-based research. *Práxis Educacional*, 17(48), 234–254. <https://doi.org/10.22481/praxi.sedu.v17i48.8821>

OECD (2018). *The Future of Education and Skills: Education 2030. The Future We Want*. Position paper published on 05-04-2018. OECD: OECD

Panadero, E. (2017). A review of self-regulated learning: Six models and four directions for research. *Frontiers in Psychology*, 8, 1–28. <https://doi.org/10.3389/fpsyg.2017.00422>

Pinto, D., Freires, T., Carvalho, A. E. & Torres, A. C. (2026, accepted). Promoting Self-Regulated Learning in Secondary Education through Peer Observation and Feedback: Student Perspectives on a Classroom Practice. In Ayala, A. (Ed.) *Self-Regulated Learning: Development, advances and future trends – Empowering learners to accomplish better academic results*. Springer Book Series in Cognitive Technologies.

Priestley, M., Biesta, G., & Robinson, S. (2013). Teachers as agents of change: Teacher agency and emerging models of curriculum. In M. Priestley & G. Biesta (Eds.), *Reinventing curriculum: New trends in curriculum policy and practice* (pp. 187–206). Bloomsbury.

Santos, A. C., Torres, A. C., Nobre, A. & Mouraz, A. (2025): The role of peer observation and peer feedback in the promotion of self-regulated learning: An integrative review, *International Journal of School & Educational Psychology*, 13(4), 307-326, <https://doi.org/10.1080/21683603.2025.2567885>

Schunk, D. H. (1987). Peer models and children's behavioral change. *Review of Educational Research*, 57(2), 149–174. <https://doi.org/10.2307/117023>

Silva, A.; Veiga Simão, A. e Sá, I. (2004). A Auto-regulação da Aprendizagem: Estudos Teóricos e Empíricos, *Intermeio: revista do Mestrado em Educação*, 10 (19), 58-74.

Torres, A. C., Duarte, M., Pinto, D., & Mouraz, A. (2024). Self-regulated learning in secondary school: Students’ self-feedback in a peer observation programme. *Studies in Educational Evaluation*, 83 (101407), <https://doi.org/10.1016/j.stueduc.2024.101407>

Trindade, R., & Cosme, A. (2016). Instruir, aprender ou comunicar: Reflexão sobre os fundamentos das opções pedagógicas perspetivadas a partir do ato de ensinar. *Revista Diálogo Educacional*, 16(50), 1031–1051. <https://doi.org/10.7213/1981-416X.16.050.AO01>

Zimmerman, B. J. (2000). Attaining self-regulation: a social cognitive perspective, in *Handbook of Self-Regulation*, eds M. Boekaerts, P. R. Pintrich, and M. Zeidner (San Diego, CA: Academic Press), 13–40. <https://doi.org/10.1016/b978-012109890-2/50031-7>