Manual for the use of the Emotion and Motivation Self-Regulation Questionnaire (EMSR-Q)

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All the articles mentioned below are free for download at: www.ernestopanadero.es

This manual is part of a package that also includes the questionnaire ready for administration, a one-page scoring guide (in Spanish), the SPSS syntax file and an Excel scoring template.

Manual for the use of the Emotion and Motivation Self-regulation Questionnaire (EMSR-Q)

The Emotion and Motivation Self-regulation Questionnaire (EMSR-Q) is an inventory measuring the use of emotional and motivational strategies in educational contexts. The questionnaire includes 20 items to be answered in a five-point Likert scale. The items are organized around five first order scales grouped in two general second order scales: the *Learning self-regulation style* and the *Avoidance self-regulation style*. This dual score is unique to the EMSR-Q producing, as it will be explained next, two outputs with different implications for the students' self-regulation.

The *Learning self-regulation style* scale includes self-messages and actions that have positive effects on the students' learning goals. For example: 'I will plan the activity before starting to execute it'. The highest the value in this scale, the more positive for learning are the emotional and motivational strategies the student is performing.

The *Avoidance self-regulation style* scale includes self-messages and actions showing lack of regulation or orientated towards avoiding the task. For example: 'I am getting nervous. I don't know how to do it'. The highest the value in this scale, the more negative and detrimental for learning are the emotional and motivational strategies the student is performing.

The names of the five first order scales are: (1) Avoidance oriented self-regulation, (2) Negative self-regulation of stress, (3) Performance oriented self-regulation, (4) Process oriented self-regulation, and (5) positive self-regulation of motivation. Each of them contains four items. The items should be summed to obtain the scores in each of the five scales. None of the items need to be reversed.

To calculate the two second order scales, as validated with Spanish sample, three of the scales need to be summed. For the *Learning self-regulation style* the following three: Performance oriented self-regulation, Process oriented self-regulation, and positive self-regulation of motivation. For the *Avoidance self-regulation style* scale the following three: Avoidance oriented self-regulation, Negative self-regulation of stress, and Performance oriented self-regulation. For Colombian higher education students, Performance oriented self-regulation is computed only in the Avoidance self-regulation style (Alonso-Tapia, Abello & Panadero, 2020).

SPSS syntax to compute scales

```
*To compute first order scales for the EMSRQ.

COMPUTE EMSRQ_Negative_SR_stress=EMSRQ_03 + EMSRQ_08 + EMSRQ_13 + EMSRQ_18.

EXECUTE.

COMPUTE EMSRQ_Avoidance_oriented_SR=EMSRQ_01 + EMSRQ_06 + EMSRQ_11 + EMSRQ_16.

EXECUTE.

COMPUTE EMSRQ_Performance_oriented_SR=EMSRQ_02 + EMSRQ_07 + EMSRQ_12 + EMSRQ_17.

EXECUTE.

COMPUTE EMSRQ_Positive_SR_motivation=EMSRQ_04 + EMSRQ_09 + EMSRQ_14 + EMSRQ_19.

EXECUTE.

COMPUTE EMSRQ_Process_oriented_SR=EMSRQ_05 + EMSRQ_10 + EMSRQ_15 + EMSRQ_20.

EXECUTE.

*To compute second order scales for the EMSRQ.

COMPUTE EMSRQ_2nd_Factor_AvSR= EMSRQ_Negative_SR_stress + EMSRQ_Avoidance_oriented_SR + EMSRQ_Performance_oriented_SR.

EXECUTE.

COMPUTE EMSRQ_2nd_Factor_LearSR= EMSRQ_Performance_oriented_SR + EMSRQ_Positive_SR_motivation + EMSRQ_Process_oriented_SR.

EXECUTE.

*For Colombian higher education students use this Learning SR style instead (without Performance oriented SR).

COMPUTE EMSRQ_2nd_Factor_LearSR_Col= EMSRQ_Positive_SR_motivation + EMSRQ_Process_oriented_SR.

EXECUTE.

*Adding labels.

VARIABLE LABELS EMSRQ_Negative_SR_stress 'EMSRQ Negative SR stress 1st order'
```

EMSRQ_Avoidance_oriented_SR 'EMSRQ Avoidance oriented SR 1st order'

EMSRQ_Performance_oriented_SR 'EMSRQ Performance oriented SR 1st order'

EMSRQ_Positive_SR_motivation 'EMSRQ Positive SR motivation 1st order'

EMSRQ_Process_oriented_SR 'EMSRQ Process oriented SR 1st order'

EMSRQ_2nd_Factor_AvSR 'EMSRQ Avoidance SR style 2nd order'

EMSRQ_2nd_Factor_LearSR 'EMSRQ Learning SR style 2nd order'

EMSRQ_2nd_Factor_LearSR_Col 'EMSRQ Learning SR style 2nd order (Colombia)'.

*To calculate **Reliability** indexes with your sample (Alpha Cronbach) (Second order scales).

*Reliability for first second order scale: EMSRQ Avoidance SR style.

```
RELIABILITY
    /VARIABLES=EMSRQ_01 EMSRQ_02 EMSRQ_03 EMSRQ_06 EMSRQ_07 EMSRQ_08 EMSRQ_11 EMSRQ_12 EMSRQ_13 EMSRQ_16 EMSRQ_17 EMSRQ_18
  /SCALE('EMSRQ Avoidance SR style') ALL
  /MODEL=ALPHA
  /STATISTICS=DESCRIPTIVE SCALE CORR
  /SUMMARY=TOTAL MEANS VARIANCE.
```

*Reliability for second second order scale: EMSRQ Learning SR style.

```
RELIABILITY
    /VARIABLES=EMSRQ_02 EMSRQ_04 EMSRQ_05 EMSRQ_07 EMSRQ_09 EMSRQ_10 EMSRQ_12 EMSRQ_14 EMSRQ_15 EMSRQ_17 EMSRQ_19 EMSRQ_20
  /SCALE('EMSRQ Learning SR style') ALL
  /MODEL=ALPHA
  /STATISTICS=DESCRIPTIVE SCALE CORR
  /SUMMARY=TOTAL MEANS VARIANCE.
```

(Spanish -castellano- version, items organization for Spanish Secondary and Higher education students)

Emotion and motivation self-regulation questionnaire EMSR-Q

© Alonso-Tapia, Panadero & Ruiz, 2014

	Items	First order scale	Second order scale
1	Esto no merece la pena: A ver si acabo pronto	Avoidance oriented SR	Avoidance SR style (.72)
2	Estoy muy cansado/a…Bueno tengo que aprobar la asignatura	Performance oriented SR	Avoidance SR style (.61) / Learning SR style (.74)
3	¡Qué estrés! Lo estoy haciendo fatal... ¡Qué difícil!	Negative SR of stress	Avoidance SR style (.82)
4	Parece que esto marcha... Me va quedando claro	Positive SR of motivation	Learning SR style (.74)
5	¡Qué difícil, pero es interesante! Tengo que entender cómo hacerlo	Process oriented SR	Learning SR style (.75)
6	Esto son ganas de hacernos perder el tiempo	Avoidance oriented SR	Avoidance SR style (.72)
7	Tengo que seguir, que si no lo hago no apruebo	Performance oriented SR	Avoidance SR style (.61) / Learning SR style (.74)
8	Esto es demasiado difícil... No voy a ser capaz de hacerlo bien	Negative SR of stress	Avoidance SR style (.82)
9	Tranquilidad...sin prisa pero sin pausa, lo conseguiré hacer	Positive SR of motivation	Learning SR style (.74)
10	Esto no está bien... Bueno… Voy a repasar despacio	Process oriented SR	Learning SR style (.75)
11	¡Vaya instrucciones más largas! Sólo sirven para liar	Avoidance oriented SR	Avoidance SR style (.72)
12	¡Qué lío! Bueno…Ánimo…Si no, no aprobaré el examen	Performance oriented SR	Avoidance SR style (.61) / Learning SR style (.74)
13	A mí esto no se me da bien. Si pudiera lo dejaba	Negative SR of stress	Avoidance SR style (.82)
14	Bueno… Creo que voy progresando… Cada vez se me da mejor	Positive SR of motivation	Learning SR style (.74)
15	Qué difícil... Bueno, no tengo que preocuparme, que lo resuelvo	Process oriented SR	Learning SR style (.75)
16	¡Qué aburrido! Vamos a ver si termino y me puedo ir	Avoidance oriented SR	Avoidance SR style (.72)
17	Esto es agotador…pero tengo que aprobar. ¡Tengo que continuar!	Performance oriented SR	Avoidance SR style (.61) / Learning SR style (.74)
18	Me estoy poniendo nervioso/a... A mí esto no me sale	Negative SR of stress	Avoidance SR style (.82)
19	¡Qué interesante! Parece que me voy enterando	Positive SR of motivation	Learning SR style (.74)
20	Aquí estaba el error. Estupendo. Ya sé que hacer la próxima vez	Process oriented SR	Learning SR style (.75)

(Spanish -castellano- version, layout for application)

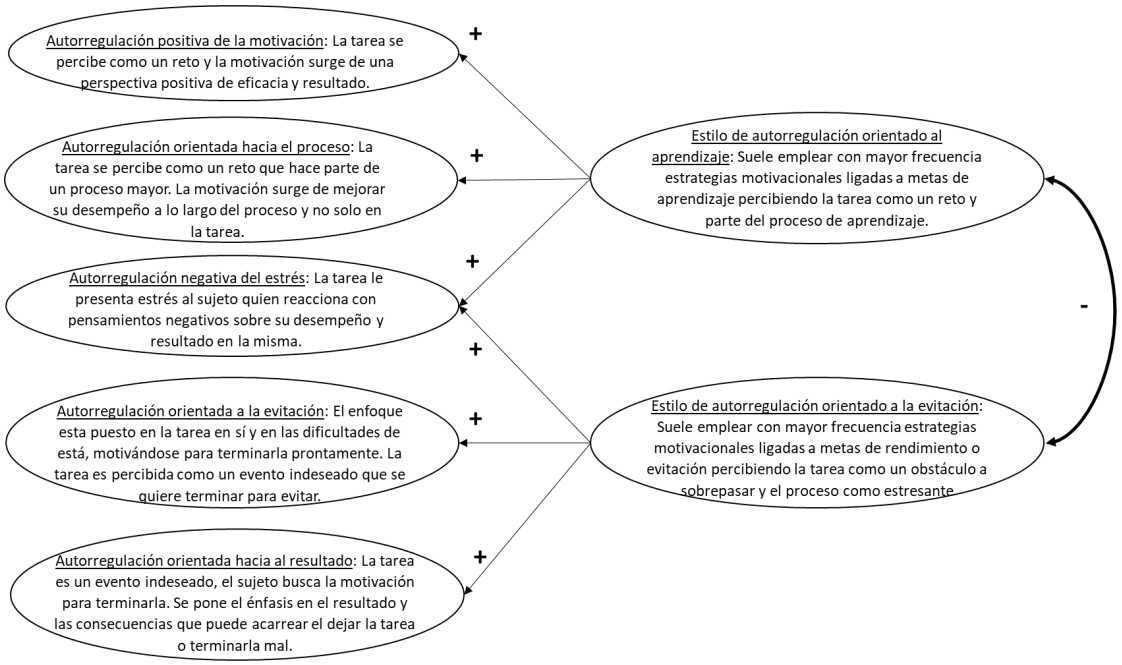
Emotion and motivation regulation questionnaire

© Alonso-Tapia, Panadero & Ruiz, 2014

Estamos tratando de entender qué pasa por la mente de los alumnos mientras trabajan con el propósito de determinar qué ayudas dar para facilitar el aprendizaje. Por eso te pedimos que señales en qué grado **te pasan por la cabeza pensamientos como los que aparecen a continuación cuando estás realizando tareas académicas**. Utiliza la siguiente escala:

1	2	3	4	5
Totalmente en desacuerdo	Más bien en desacuerdo	Indiferente	Más bien de acuerdo	Totalmente de acuerdo

1	Esto no merece la pena: A ver si acabo pronto.	1	2	3	4	5
2	Estoy muy cansado/a…Bueno tengo que aprobar la asignatura.	1	2	3	4	5
3	¡Qué estrés! Lo estoy haciendo fatal... ¡Qué difícil!	1	2	3	4	5
4	Parece que esto marcha... Me va quedando claro.	1	2	3	4	5
5	¡Qué difícil, pero es interesante! Tengo que entender cómo hacerlo.	1	2	3	4	5
6	Esto son ganas de hacernos perder el tiempo.	1	2	3	4	5
7	Tengo que seguir, que si no lo hago no apruebo.	1	2	3	4	5
8	Esto es demasiado difícil... No voy a ser capaz de hacerlo bien.	1	2	3	4	5
9	Tranquilidad...sin prisa pero sin pausa, lo conseguiré hacer.....	1	2	3	4	5
10	Esto no está bien... Bueno… Voy a repasar despacio.....	1	2	3	4	5
11	¡Vaya instrucciones más largas! Sólo sirven para liar.	1	2	3	4	5
12	¡Qué lío! Bueno…Ánimo…Si no, no aprobaré el examen.....	1	2	3	4	5
13	A mí esto no se me da bien. Si pudiera lo dejaba.	1	2	3	4	5
14	Bueno… Creo que voy progresando… Cada vez se me da mejor.	1	2	3	4	5
15	Qué difícil... Bueno, no tengo que preocuparme, que lo resuelvo.	1	2	3	4	5
16	¡Qué aburrido! Vamos a ver si termino y me puedo ir	1	2	3	4	5
17	Esto es agotador…pero tengo que aprobar. ¡Tengo que continuar!	1	2	3	4	5
18	Me estoy poniendo nervioso/a... A mí esto no me sale.	1	2	3	4	5
19	¡Qué interesante! Parece que me voy enterando.....	1	2	3	4	5
20	Aquí estaba el error. Estupendo. Ya sé que hacer la próxima vez.	1	2	3	4	5



Estructura del EMSRQ (in Spanish)

(English version with slight grammatical corrections from the version published in 2014)

Emotion and motivation self-regulation questionnaire EMSR-Q

© Alonso-Tapia, Panadero & Ruiz, 2014

	Items	First order scale	Second order scale
1	This is not worth my time...Let's try to finish it as soon as possible	Avoidance oriented SR	Avoidance SR style (.72)
2	I'm very tired...Well, I have to continue to pass	Performance oriented SR	Avoidance SR style (.61) / Learning SR style (.74)
3	What a stressful task! I'm doing it wrong…It's so difficult!	Negative SR of stress	Avoidance SR style (.82)
4	This is going OK!…I seem to understand it	Positive SR of motivation	Learning SR style (.74)
5	How difficult, but how interesting! I have to understand how to do it	Process oriented SR	Learning SR style (.75)
6	This task is a complete waste of time!	Avoidance oriented SR	Avoidance SR style (.72)
7	I must go on…If I don't, I'll fail	Performance oriented SR	Avoidance SR style (.61) / Learning SR style (.74)
8	This is so difficult... I am not going to be able to make it right	Negative SR of stress	Avoidance SR style (.82)
9	Calm down…"Do not hurry, do not stop"… You'll get it	Positive SR of motivation	Learning SR style (.74)
10	This is not right…I'm going to check it step by step	Process oriented SR	Learning SR style (.75)
11	Such long instructions! They only make me confused	Avoidance oriented SR	Avoidance SR style (.72)
12	What a mess! Well...Go on...If you don't you won't pass the exam	Performance oriented SR	Avoidance SR style (.61) / Learning SR style (.74)
13	I am not good at this. If I could, I would give up.	Negative SR of stress	Avoidance SR style (.82)
14	Well…It seems that with every attempt I'm doing better…	Positive SR of motivation	Learning SR style (.74)
15	How complicated!... Well, I'll go on... it is important to learn how to solve it	Process oriented SR	Learning SR style (.75)
16	What a boring task! Let's see if I can finish and leave	Avoidance oriented SR	Avoidance SR style (.72)
17	What a tiring task!... But I have to pass... Let's continue	Performance oriented SR	Avoidance SR style (.61) / Learning SR style (.74)
18	I am getting nervous… I'm not able to do it	Negative SR of stress	Avoidance SR style (.82)
19	How interesting! I think I understand it	Positive SR of motivation	Learning SR style (.74)
20	Here was the mistake! Excellent! Next time I will know how to do it	Process oriented SR	Learning SR style (.75)

(English version, layout for application)

Emotion and motivation regulation questionnaire

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We are trying to understand what goes through the minds of learners while they study. Our purpose is to determine what instructional scaffolds we shall offer to students to facilitate their learning. Therefore, we ask you to point out **to what degree thoughts like the ones below cross your mind when you are performing academic assignments**. Using the following scale:

1	2	3	4	5
Strongly disagree	Disagree	Neutral	Agree	Strongly agree

1	This is not worth my time...Let's try to finish it as soon as possible	1	2	3	4	5
2	I'm very tired...Well, I have to continue to pass	1	2	3	4	5
3	What a stressful task! I'm doing it wrong…It's so difficult!	1	2	3	4	5
4	This is going OK!…I seem to understand it	1	2	3	4	5
5	How difficult, but how interesting!...I have to understand how to do it	1	2	3	4	5
6	This task is a complete waste of time!	1	2	3	4	5
7	I must go on…If I don't, I'll fail	1	2	3	4	5
8	This is so difficult... I am not going to be able to make it right	1	2	3	4	5
9	Calm down…"Do not hurry, do not stop"… You'll get it	1	2	3	4	5
10	This is not right…I'm going to check it step by step	1	2	3	4	5
11	Such long instructions! They only make me confused	1	2	3	4	5
12	What a mess! Well...Go on...If you don't you won't pass the exam	1	2	3	4	5
13	I am not good at this. If I could, I would give up.	1	2	3	4	5
14	Well…It seems that with every attempt I'm doing better…	1	2	3	4	5
15	How complicated!... Well, I'll go on... it is important to learn how to solve it	1	2	3	4	5
16	What a boring task! Let's see if I can finish and leave	1	2	3	4	5
17	What a tiring task!... But I have to pass... Let's continue	1	2	3	4	5
18	I am getting nervous… I'm not able to do it	1	2	3	4	5
19	How interesting! I think I understand it	1	2	3	4	5
20	Here was the mistake! Excellent! Next time I will know how to do it	1	2	3	4	5

(Spanish Colombian version, items organization for Colombian Higher education students. Loadings from Alonso-Tapia, Abello & Panadero, 2020; Performance oriented SR is computed only in the Avoidance SR style)

Emotion and motivation self-regulation questionnaire EMSR-Q

© Alonso-Tapia, Panadero & Ruiz, 2014

	Items	First order scale	Second order scale
1	Esto no vale la pena. Quisiera acabar pronto	Avoidance oriented SR	Avoidance SR style (.82)
2	¡Qué cansancio! Bueno, tengo que seguir si quiero pasar	Performance oriented SR	Avoidance SR style (.95)
3	¡Qué estrés! Lo estoy haciendo muy mal... ¡Qué difícil!	Negative SR of stress	Avoidance SR style (.65)
4	Parece que voy progresando... Me va quedando claro	Positive SR of motivation	Learning SR style (.91)
5	¡Qué difícil, pero que interesante! Tengo que entender cómo se hace	Process oriented SR	Learning SR style (.87)
6	Esto son ganas de hacernos perder el tiempo	Avoidance oriented SR	Avoidance SR style (.82)
7	Tengo que seguir, si no lo hago no paso	Performance oriented SR	Avoidance SR style (.95)
8	Esto es demasiado difícil... No voy a ser capaz de hacerlo bien	Negative SR of stress	Avoidance SR style (.65)
9	Tranquilo... Sin prisa pero sin pausa, seguro lo logro	Positive SR of motivation	Learning SR style (.91)
10	Esto no está bien... Bueno... Voy a repasar despacio	Process oriented SR	Learning SR style (.87)
11	¡Que instrucciones tan largas! Sólo sirven para enredar	Avoidance oriented SR	Avoidance SR style (.82)
12	¡Qué complicado! Pero tengo que seguir. Si no lo termino me van a rajar	Performance oriented SR	Avoidance SR style (.95)
13	No soy bueno para esto. Si pudiera lo dejaba	Negative SR of stress	Avoidance SR style (.65)
14	Bueno... Creo que voy progresando... Cada vez me va mejor	Positive SR of motivation	Learning SR style (.91)
15	¡Qué complicado!... Bueno, voy a seguir que es importante aprender a resolverlo	Process oriented SR	Learning SR style (.87)
16	¡Qué aburrimiento de tarea! Mejor termino rápido para salir de eso	Avoidance oriented SR	Avoidance SR style (.82)
17	¡Qué tarea tan cansona! Pero hay que pasar...Así que seguiré	Performance oriented SR	Avoidance SR style (.95)
18	Me estoy poniendo nervioso...Esto no es fácil para mí	Negative SR of stress	Avoidance SR style (.65)
19	¡Qué interesante! Parece que estoy entendiendo	Positive SR of motivation	Learning SR style (.91)
20	Aquí estaba el error. Súper. Ya sé que hacer la próxima vez.	Process oriented SR	Learning SR style (.87)

(Spanish -Colombian- version, layout for application)

Emotion and motivation regulation questionnaire

© Alonso-Tapia, Panadero & Ruiz, 2014

Estamos tratando de entender qué pasa por la mente de los alumnos mientras trabajan con el propósito de determinar qué ayudas dar para facilitar el aprendizaje. Por eso te pedimos que señales en qué grado **te pasan por la cabeza pensamientos como los que aparecen a continuación cuando estás realizando tareas académicas**. Utiliza la siguiente escala:

1	2	3	4	5
Totalmente en desacuerdo	Más bien en desacuerdo	Indiferente	Más bien de acuerdo	Totalmente de acuerdo

1	Esto no vale la pena. Quisiera acabar pronto	1	2	3	4	5
2	¡Qué cansancio! Bueno, tengo que seguir si quiero pasar	1	2	3	4	5
3	¡Qué estrés! Lo estoy haciendo muy mal... ¡Qué difícil!	1	2	3	4	5
4	Parece que voy progresando... Me va quedando claro	1	2	3	4	5
5	¡Qué difícil, pero que interesante! Tengo que entender cómo se hace	1	2	3	4	5
6	Esto son ganas de hacernos perder el tiempo	1	2	3	4	5
7	Tengo que seguir, si no lo hago no paso	1	2	3	4	5
8	Esto es demasiado difícil...No voy a ser capaz de hacerlo bien	1	2	3	4	5
9	Tranquilo... Sin prisa pero sin pausa, seguro lo logro	1	2	3	4	5
10	Esto no está bien...Bueno...Voy a repasar despacio	1	2	3	4	5
11	¡Que instrucciones tan largas! Sólo sirven para enredar	1	2	3	4	5
12	¡Qué complicado! Pero tengo que seguir. Si no lo termino me van a rajar	1	2	3	4	5
13	No soy bueno para esto. Si pudiera lo dejaba	1	2	3	4	5
14	Bueno...Creo que voy progresando...Cada vez me va mejor	1	2	3	4	5
15	¡Qué complicado! Bueno, voy a seguir que es importante aprender a resolverlo	1	2	3	4	5
16	¡Qué aburrimiento de tarea! Mejor termino rápido para salir de eso	1	2	3	4	5
17	¡Qué tarea tan cansona! Pero hay que pasar...Así que seguiré	1	2	3	4	5
18	Me estoy poniendo nervioso...Esto no es fácil para mí	1	2	3	4	5
19	¡Qué interesante! Parece que estoy entendiendo	1	2	3	4	5
20	Aquí estaba el error. Súper. Ya sé que hacer la próxima vez.	1	2	3	4	5

Historical development of the EMSR-Q

Document created by Ernesto Panadero (ernesto.research@gmail.com) and Jesús Alonso-Tapia

This document provides a historical development of the EMSR-Q. This questionnaire was developed within Jesús Alonso-Tapia project on motivation and self-regulated learning as a part of Ernesto Panadero dissertation. The questionnaire has been used with secondary and higher education students, initially, for the studies on self-assessment effects from Panadero's thesis. In 2014 the questionnaire was validated and published in its final version (Alonso-Tapia, Panadero & Ruiz, 2014) using a large sample size of Spanish secondary education students. In 2020 two new validation actions were taken. First, it was explored if the factor structure would remain with Spanish higher education students, thus after collecting a large sample size it was found the structure could be maintained. Second, the structure was cross-culturally validated with a large same of Colombian higher education students. Here there was a change and the first order scale "Performance Oriented SR" did not load significantly in the "Learning SR style". Apart from that the structure remained stable.

Study	General description questionnaire	Positive SRL: name of the scale, items, Cronbach and explanation of the scale	Negative SRL: name of the scale, items, Cronbach and explanation of the scale	Observations
Alonso-Tapia & Panadero, 2010	General and Specific Self-Regulation Questionnaire (GSSRQ). "includes general self-regulation items related to planning, self- monitoring, and self-assessment, as well as some specific items related to landscape analysis. **36 items** are grouped in two scales Items Likert-format 1 (Never) to 5 (A Lot) indicating frequency of thoughts or actions. The two scales were not significantly correlated."	Positive Self-Regulation Reliability 0.81 "…which includes task-oriented actions such as "I am going to review…I think this is wrong…Oh, I see what to do now!" (Item 14)"	Negative Self-Regulation Reliability 0.89 "…which includes thoughts and actions that imply lack of positive self-regulation and a lack of coping behaviours when confronting difficulties and stress, such as "I am getting nervous…I don't know how to do this…" (Item 7)."	The full questionnaire was NOT provided nor the full distribution of items **Sample**: secondary ed. students
Changes from 2010 to 2012	*No changes. The versions of EMSR-Q used between the 2010 and 2012 were exactly the same ones as the Specific SRQ questions from the 2010 referred to landscape analysis exactly the same task used in the 2012 publication which "just" added the rubric condition.*			
Panadero, Alonso-Tapia & Huertas, 2012	Emotion and Motivation Self-regulation Questionnaire (EMSR-Q) (Alonso-Tapia, Panadero, & Ruiz, submitted for publication). **36 items** answered in a five-point Likert scale. They are grouped in two scales	Learning self-regulation 19 items Reliability .90, (Cronbach alphas computed using data gathered in this study) "The first scale includes self-messages or actions orientated to learning goals, for example: "I will plan the activity before starting to execute it". The higher the value in this scale, the more positive is the self-regulation for learning."	Performance/avoidance self-regulation 17 items Reliability .88 "The second scale includes self-messages or actions showing lack of self-regulation or orientated to performance, for example: "I am getting nervous. I don't know how to do it". The higher the values in this scale, the more negative learning self-regulation will be"	The full questionnaire was NOT provided nor the full distribution of items **Sample**: secondary ed. students
Changes from 2010/12 to 2013	Six items were deleted from the 2010-12 version to the version used in the 2013 study. These items were the specific items related landscape analysis task. In the 2013 there were also specific self-regulatory items, but they were organized in their own questionnaire the Specific self-regulation questionnaire (SSR). This questionnaire had two scales (a) designing multimedia material using a Power-Point presentation and (b) design of a WebQuest or Treasure Hunt.			
Panadero, Alonso-Tapia & Reche,	Name: Emotion and Motivation Self-regulation Questionnaire (EMSR-Q).	Learning self-regulation. 13 items	Performance/avoidance self-regulation. 17 items	The full questionnaire

2013	30 items, organized around two second-order scales to be answered in a five-point Likert scale ranging from 'never' to 'always'. (p. 127)	Reliability .78 "This scale measures self-regulating messages oriented to learning goals, for example: ''I will plan the activity before starting to execute it''."	Reliability .86. "This scale measures self-regulating messages oriented to performance goals or to avoid the task, for example: ''I am getting nervous. I don't know how to do it''. The higher the value in this scale, the more negative actions detrimental for learning occur.	was NOT provided nor the full distribution of items **Sample**: HE students
Changes from 2013 to 2014	Here there are some significant changes. This study uses already the 20 items structure validated in Alonso-Tapia, Panadero & Ruiz (2014). The first order scale Performance oriented self-regulation was computed in the second order scale Avoidance SR style (in the study called Performance/Avoidance SR scale). Apart from that there was also a Specific Self-Regulation Questionnaire (SSR-Q) including two scales: one for creating conceptual maps the other for summarizing a text.			
Panadero, Alonso-Tapia & Huertas, 2014	Emotion and Motivation Self-regulation Questionnaire (EMSR-Q) (Alonso-Tapia et al., 2014). 20 items to be answered in a five-point Likert scale. They are included in five basic scales grouped in two general scales.	Learning self-regulation 8 items Reliability .78, "The first scale includes self-messages or actions orientated to learning goals, as for example: 'I will plan the activity before starting to execute it'. The highest the value in this scale, the more positive is self-regulation for learning."	Performance/avoidance self-regulation 12 items Reliability .86. "The second scale includes self-messages or actions showing lack of self-regulation or orientated to performance, as for example: 'I am getting nervous. I don't know how to do it'. The highest the values in this scale, the more negative actions detrimental for learning occur."	The full questionnaire was NOT provided nor the full distribution of items **Sample**: HE students
Changes from 2014a to 2014b	No changes. Same structure from the 2014a (…Huertas, 2014). Interestingly, here again the first order scale Performance oriented self-regulation was computed in the second order scale Avoidance SR style (in the study called Performance/Avoidance SR scale). Here there was no specific SRL questionnaire and the authors used an open question instead (which worked better than the previous approaches).			
Panadero & Romero, 2014	'Emotion and Motivation Self-Regulation Questionnaire' (EMSR-Q). (Alonso-Tapia et al., in press) (Appendix 1). 20 items that are answered on a five-point Likert scale, ranging from 'almost never' to 'almost always'. The items are grouped into two scales.	Learning self-regulation 8 items Reliability .90 "The first scale includes actions that are oriented to learning goals (e.g. 'I will plan the activity before starting to execute it'). The higher the value in this scale, the more positive the effect of self-regulation on learning would be."	Performance/avoidance self-regulation 12 items Reliability .88 "The second scale includes actions that show a lack of self-regulation or orientation to performance (e.g. 'I am getting nervous. I don't know how to do it'). The higher the value on this scale, the more negative the actions for learning performance would be."	The full questionnaire and the two 2nd order scales item distribution is provided. **Sample**: HE students
		VERY IMPORTANT: In Panadero and Romero (2014) the "Performance oriented SR" 1st order scale was computed only in the 2nd order scale "Performance/Avoidance SR".		
The validation study of the EMSR-Q				
Alonso-Tapia, Panadero & Ruiz, 2014	"Emotion and Motivation Self-Regulation Questionnaire" (EMSR-Q). The second order scales are named as: "Avoidance self-regulation style" and "Learning self-regulation style". These are the names that should be used. "This questionnaire, shown in Table 1, contains 20 items including five types of general self-messages or mental verbalizations through which students self-regulate (adequately or not) the positive and negative emotions which can favour or interfere with their learning activities, and the motivation itself."			The full questionnaire and the five first order scales item distribution is

	"Chi-square statistic was significant, probably due to sample size, but the ratio χ2/df (χ2/df = 2.71 < 5) and Root Mean Square Error of Approximation (RMSEA = .07 < .08) were well inside the limits that allow the model to be accepted. The remaining fit indexes fell slightly short on the standard limits of acceptance: GFI (Goodness of Fit Index) = .89; IFI (Incremental Fit Index) = .84; CFI (Comparative Fit Index) = .84. Hence, it was necessary to consider cross validation analyses to decide whether the model was well defined. Second order latent factors were well represented by their respective first order latent factors, and explain the 63% of their variance. Specially, they had a significant predictive effect on Performance oriented SR, explaining 87 % of its variance. All estimated parameter signs matched with the theoretically expected direction of relation." **<u>NOTE</u>: The article did not establish whether the first order scale named Performance oriented self-regulation should score in the Avoidance SR style (where it loads .61) or Learning SR style (where it loads .89).**	provided along with the reliability for each of them. **Sample: 664 secondary students.**
Changes in 2020 Alonso-Tapia, Abello & Panadero (2020)	Two different studies with higher education samples from Spain and Colombia were conducted. The original structure from the 2014 article remained for the Spanish university students. However, for the Colombian university students there was a change: the "Performance oriented self-regulation" first order scale did not load enough to be meaningful in the "Learning SR style" second order scale. This data is presented and discussed in an article by Alonso-Tapia, Abello & Panadero (2020). With these new analyses it is recommended that: a) For studies with Spanish secondary and higher education students the scale "Performance oriented SR" should be computed in both second order scales. b) For studies with Colombian higher education students the first order scale "Performance oriented SR" should be computed only in "Avoidance SR style" second order scale. Note: the new Spanish Higher Education data comes from a project led by Panadero's: MINECO EDU2016-79714-P.	Colombian validation of the tool including Spanish Higher Ed. sample data never presented before

Statistical data from Alonso-Tapia, Panadero & Ruiz (2014)
Spanish secondary education students

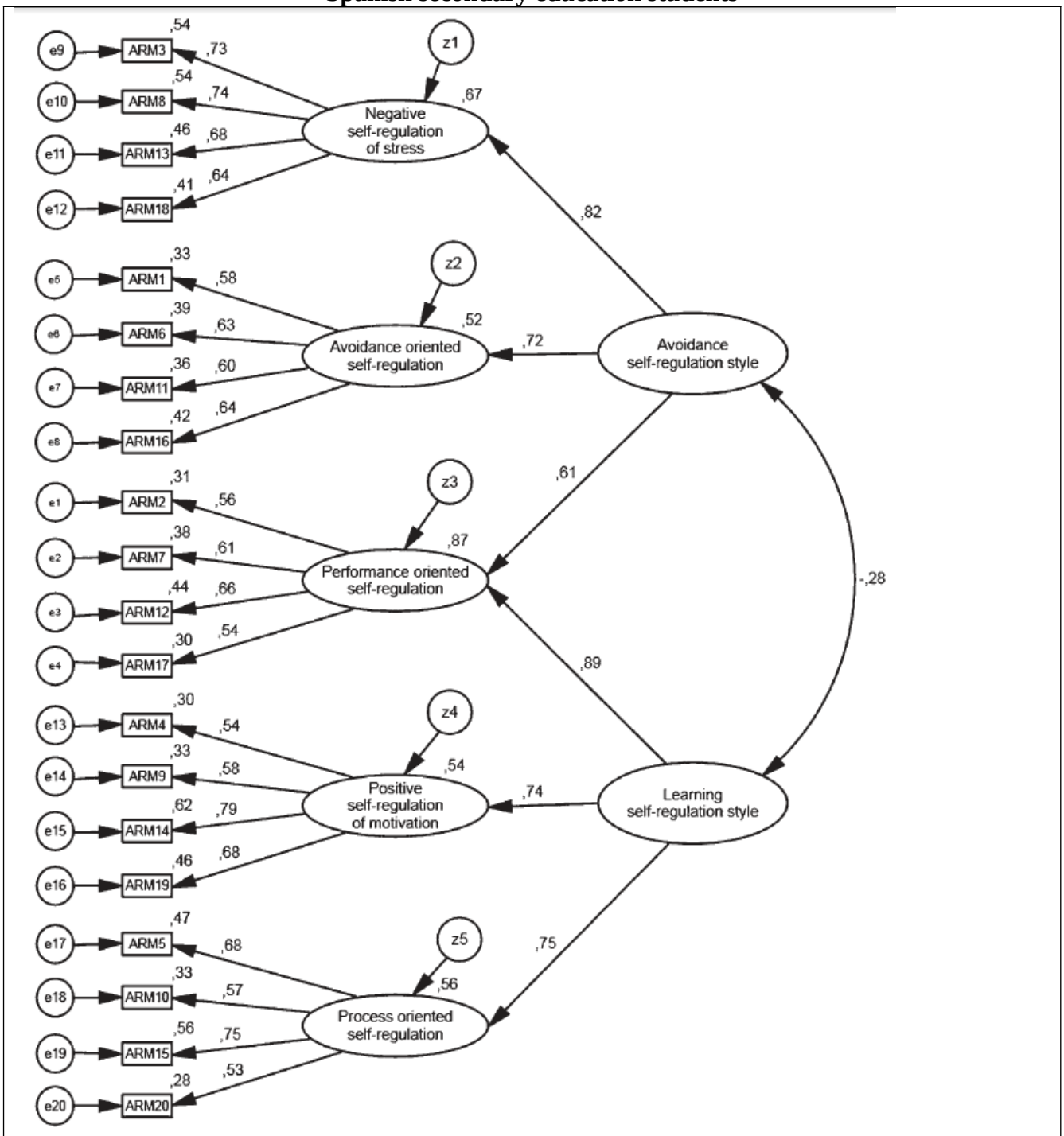


Figure 2. SRMQ: Baseline confirmatory model (standardized estimates).

Factor structure CFA. Sample Spanish Secondary education students. (Extracted from Alonso-Tapia, Panadero & Ruiz, 2014)

Correlations EMSR-Q with MEVA (goal orientations and expectations) and CMC (classroom motivational climate). Extracted from Alonso-Tapia, Panadero & Ruiz, 2014.

Table 6. *Correlations and internal consistency (Whole sample, N = 664)* [1,2]

Measures		LGO	PGO	AGO	CE	EE	LSRS	ASRS	CMC	INT	PA	EF	SE	PCSR	SAT
Learning orientation	LGO	*.77*	.043	–.307**	.329**	.276**	.457**	–.448**	.213**	.248**	.196**	.236**	.185**	.232**	.172**
Performance Orientation	PGO		*.74*	.025	.066	.057	.005	.026	–.016	–.039	–.020	–.023	–.033	.019	–.047
Avoidance Orientation	AGO			*.70*	–.206**	–.282**	–.022	.260**	–.130**	–.122**	–.078	–.146**	–.129**	–.042	–.134**
Control expectancies	CE				*.80*	.623**	.298**	–.286**	.286**	.227**	.229**	.229**	.283**	.120**	.240**
Self-efficacy expectancies	EE					*.68*	.219**	–.281**	.144**	.164**	.147**	.162**	.215**	.058	.135**
Learning self-regulation style	LSRS						*.84*	–.076*	.195**	.216**	.216**	.240**	.190**	.205**	.148**
Avoidance Self-regulation style	ASRS							*.77*	–.236**	–.255**	–.221**	–.265**	–.288**	–.215**	–.228**
Classroom motivational climate	CMC								*.93*	.748**	.733**	.765**	.717**	.663**	.788**
Interest attributed to teacher wok	INT									*.75*	.777**	.810**	.747**	.699**	.793**
Perceived ability attributed to teacher work	PA										*.65*	.777**	.710**	.681**	.761**
Effort disposition attributed to teacher work	EF											*.67*	.693**	.676**	.771**
Success expectancies attributed to teacher work	SE												*.64*	.619**	.723**
Self-regulation change attributed to teacher's work	PCSR													*.90*	.637**
Satisfaction with teacher work	SAT														*.75*

[1] **Correlations significant at the .01 level; *Correlations significant at the .05 level.

[2] Reliability indexes (α) are shown in the diagonal.

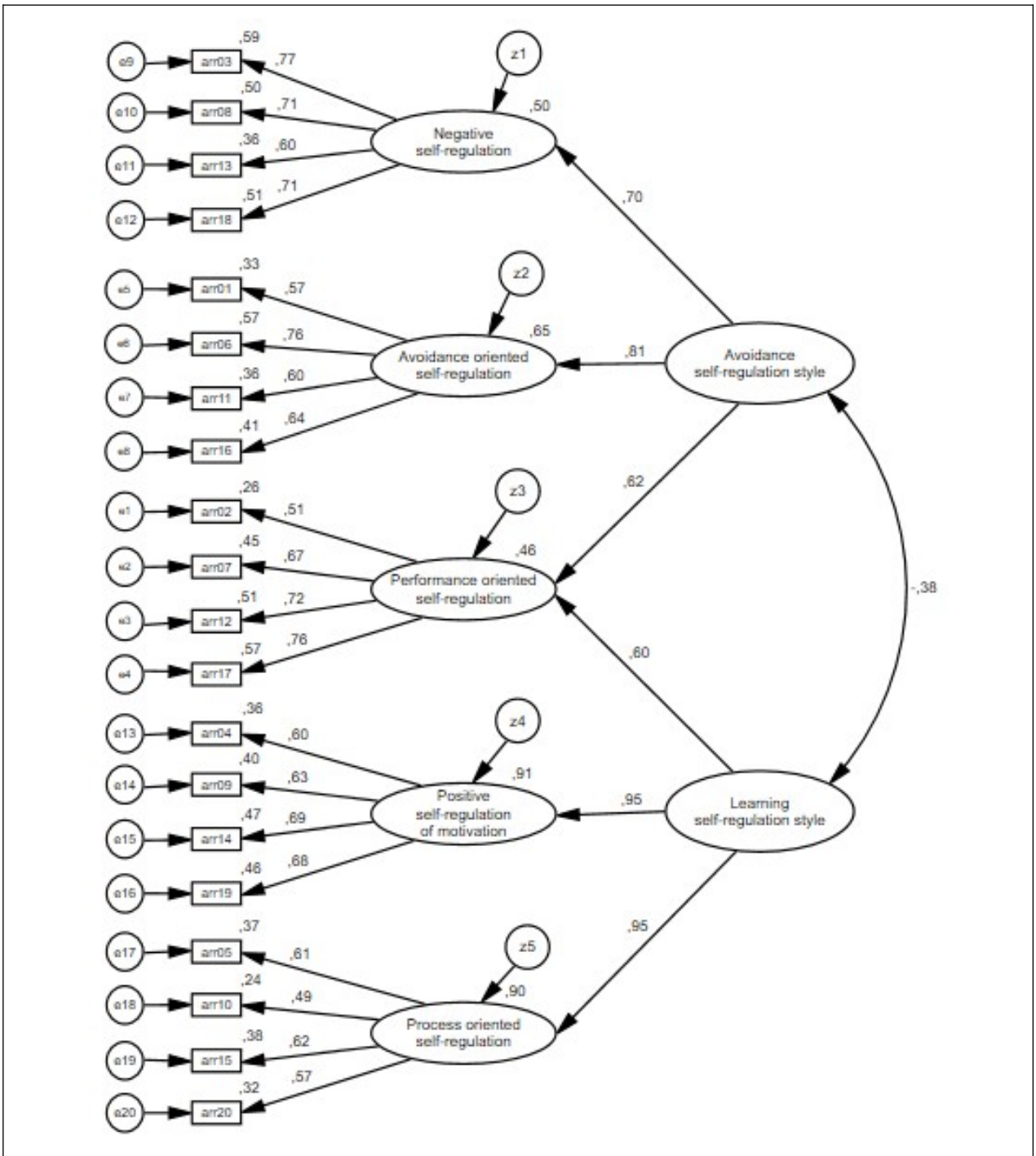
Correlations EMSR-Q first order scales and goal orientations and expectancies as taken from the MEVA 3 (Extracted from Alonso-Tapia, Panadero & Ruiz, 2014)

Table 7. *Factor analysis of correlations between goal orientations, expectancies and self-regulation variables*

	Configuration matrix.		
	F1	*F2*	*F3*
Learning orientation	.447	−.554	
Performance-approach orientation			.449
Performance-avoidance orientation		.522	
Control Expectancies			.759
Efficacy Expectancies			.809
Positive self-regulation of motivation	.776		
Process oriented self-regulation	.879		
Performance centred self-regulation	.764	.447	
Negative self-regulation of stress		.795	
Avoidance oriented Self-regulation		.782	
% of variance explained	31.32	17.36	10.99

Statistical data from Panadero's MINECO Project EDU2016-79714-P

Spanish higher education students



Factor structure CFA. Sample Spanish Higher education students.

Table EMSRQ Spanish Secondary-University students

Analysis	χ^2	*df*	*p*	χ^2/df	GFI	TLI	CFI	RMSEA	SRMR
CFA-1 G1 (N = 277)	344.09	163	.000	2.23	.88	.86	.88	.07	.07
CFA-2 CV (N_{G1} = 277, N_{G2} =277)	776.64	341	.000	2.28	.88	.85	.86	.05	.07
CFA-3 MG Educ. Level (N_{CR} = 554, N_S = 664)	1055.31	235	.000	3.23	.92	.87	.89	.04	.08
PATH to SEM_grade (N_1 = 554)	114.86	51	.000	2.25	.96	.95	.96	.05	.03

Assessment of Normality: 72.20

Reliability TOT ω_{NSR} = .87; ω_{AOSR} = .89; ω_{PfOSR} = .86; ω_{PSRM} = .84; ω_{PrOSR} = .85; $\omega_{ASRStyle}$ = .88; $\omega_{LSRStyle}$ = .95;

CV Measurement weights CMIN 24.01 p = .065

MG by Educational Level: Unconstrained

Table XXX. Regression analysis. Criterion: Self-attributed mean grade (SaMG). Predictors: SR STYLES

			Standardized Regression Coefficients	
R	R^2	*P*	Learning Self-regulation style	Avoidance Self-regulation style
.306		<.0001	.224***	-.260***

*** $p < .0001$.

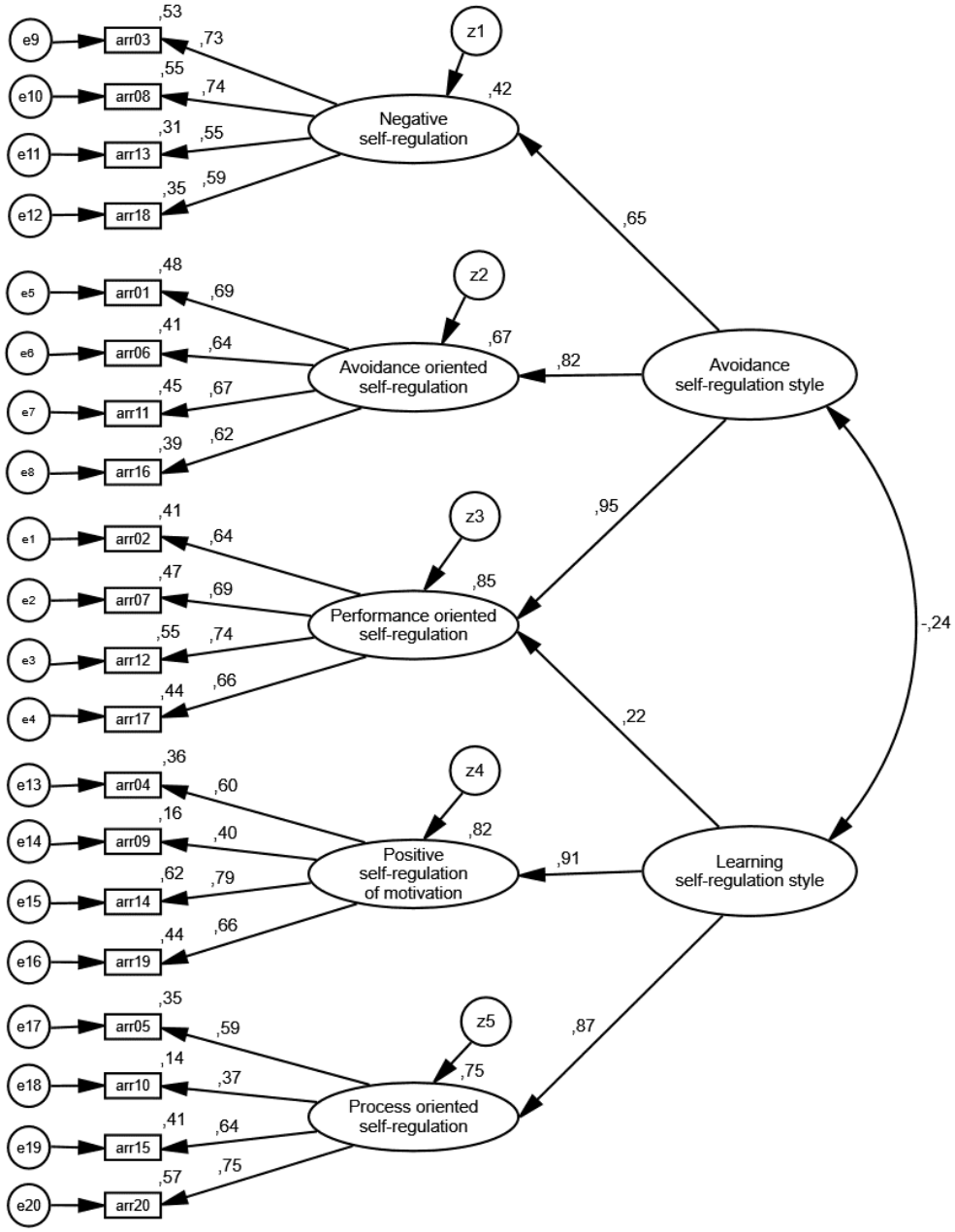
Table YYY. Regression analysis. Criterion: Self-attributed mean grade (SaMG). Predictors: SR STRATEGIES

			Standardized Regression Coefficients				
R	R^2	*P*	Negative Self-regulation	Avoidance Self-Regulation	Performance Self-Regulation	Positive Self-Regulation of Motivation	Process Oriented Self-Regulation
.338	.114	<.0001	-2.14***	.037	-.047	.136**	.106

*** $p < .001$; ** $p < .02$.

Statistical data from Alonso-Tapia, Abello & Panadero (2020)

Colombian higher education students



Factor structure CFA. Sample Colombian Higher education students.

Table **1**

EMSR-Q Scales

Self-regulation Style	Scale	Alpha
Avoidance-oriented: The higher the value the more the learner employs motivational strategies linked to avoidance and, to a lesser extent, performance goals, perceiving the task as an obstacle overcome, and the learning process as stressful (α= .77).	*Negative self-regulation of stress*. The task generates stress in the person, who reacts with negative thoughts about their performance and its outcome.	.79
	Avoidance oriented self-regulation. The focus is on the task itself and on its difficulties, motivating oneself to complete it promptly. The task is perceived as an undesired event an individual wants to complete to avoid it.	.69
	Performance oriented self-regulation. A task is an undesired event; the person seeks the motivation to complete it. Emphasis is placed on performance and the consequences that may ensue due to quitting the task or failing at it.	.72
Learning-oriented: Higher values indicate the learner employs motivational strategies linked to learning goals, perceive the task as a positive challenge and as part of the learning process (α= .84)	*Positive self-regulation of motivation*. The task is perceived as a challenge; motivation arises from a positive perspective of efficiency and outcome.	.84
	Process oriented self-regulation. The task is perceived as a challenge that is part of a larger process. Motivation arises from improving their performance throughout the process and not just from succeeding in the task.	.70

Table 2. *Fit Indices for EMSR-Q Confirmatory (CFA) and Multi-Group (MG) Factor Analyses*

	χ^2	*df*	*p*	χ^2/df	TLI	CFI	RMSEA	SRMR
CFA1 (*N* = 318)	465.79	166	<.001	2.80	.82	.84	.075	.078
CFA2 (*N* =318 / 326)	1009.90	376	<.001	2.68	.85	.85	.051	.080
MG1 (N_B: 453; N_A: 191) [1]	927.58	356	<.001	2.60	.85	.85	.050	.078
MG2 (N_C: 644; N_S: 664)	1315.26	332	<.001	3.96	.85	.87	.048	.077

[1] *Note:* N_B: N basic level, ; N_A: N advanced level; N_C: N Colombia; N_S: N Spain

Table 3. *Differences Between Structural Raw Weights in the EMSR-Q Between Colombian University students, and Spanish Secondary and High School Students. Z of Clogg et al. (1995)*

	SR Strategy	Beta Colombia	SE[1] Colombia	Beta Spain	SE Spain	Diffe-rence	Z Clogg
Avoidance SR style	Avoidance oriented SR	1.00		1.00		.00	.00
	Negative SR of stress	.95	.09	1.72	.24	-.76	-4.91
	Performance oriented SR	1.66	.14	1.18	.17	.47	2.75
Learning SR style	Performance oriented SR	.29	.06	.87	.08	-.57	-7.80
	Positive SR of motivation	1.15	.10	.91	.08	.24	2.26
	Process oriented SR	1.00		1.00		.00	.00

[1] *Note.* SE: Standard error.

Table 4

Reliability Indexes of the EMSR-Q

Scales	Alpha	Omega
First order		
Negative self-regulation of stress	.73	.85
Avoidance oriented self-regulation	.77	.90
Performance oriented self-regulation	.79	.87
Positive self-regulation of motivation	.69	.82
Process oriented self-regulation	.70	.85
Second order		
Avoidance oriented self-regulation style	.86	.93
Learning oriented self-regulation style	.75	.92

Table 5

Regression Analysis. Standardized Regression Weights. Predictors: Self-Regulation Strategies (SR). Criterion: Mean Grade

R	*p*	Negative SR of stress	Avoidance oriented SR	Performanc-oriented SR	Positive SR of motivation	Processoriented SR
.26	.001	-.17	.08	-.16	-.08	.04