

University students' self-regulation in standard and enforced online language learning

JAKUB PRZYBYŁ

Adam Mickiewicz University (Poznań)

SEBASTIAN CHUDAK

Adam Mickiewicz University (Poznań)

Abstract

Since new learning environments are believed to affect student motivation and cognition, and thus, have a huge impact on the processes underlying self-regulated learning, the transition to online learning due to the COVID-19 pandemic is likely to have challenged students' ability to remain in charge of the learning process. Distance language learners could be particularly challenged by profusion of material, cognitive overload or unsettled participation patterns. Based on introspective data obtained from a representative sample of 321 university students majoring in various foreign languages, the present study aims to compare participants' self-regulation in standard and online education and identify problem areas which demand action. At the same time, it seeks to respond to earlier calls for providing teachers with insights into students' changing self-regulation routines and the processes underlying these changes. Data analysis clearly indicates that participants' self-regulation (SR) has significantly deteriorated due to the shift from standard to online learning with respect to all the investigated SR areas. Also, while the investigated students reported a relatively high level of SR in the planning stage, their dramatically low level of reflection over the learning process could be seen as an impediment to a smooth transition from standard to distance learning.

Key words: self-regulation, self-regulated language learning, distance language learning, online education, tertiary language education, self-regulation processes

1. Introduction

The present paper discusses university students' self-regulation (SR) in COVID-19-enforced distance, online language learning (DOLL). Since new learning environments are believed to influence students' motivation and cognition (Pintrich 2003), and thus, also expected to affect their SR in the learning process, the transition to online learning due to the pandemic is likely to have challenged students' ability to remain in charge. While attempts to investigate language learners' SR have been made both in general (Liu and Lee 2015) and with respect specific language skills and subsystems (Teng and Zhang 2018; Tseng, Dörnyei, and Schmitt 2006), they have largely focused on reconceptualizing strategic language learning (Rose et al. 2018). At the same time, researchers of language learning strategies (LLS) and SR have provided valuable insights into the nature of distance language learning (DLL) (Hurd and Lewis 2008), developed models of self-regulated DLL (Andrade and Bunker 2009) and investigated the role of specific

resources in distance education (Hromalik and Koszalka 2018). Given the present circumstances of compulsory DOLL at a great number of universities worldwide, an urgent need arises to investigate changes in language learners' SR and compare how the planning, monitoring, controlling, and reflecting on the learning process are each handled by students. This paper aims to provide relevant insights as well as identify the aspects of SR which are particularly prone to deteriorate due to the sudden and largely involuntary shift to DOLL.

2. Theoretical background for investigating self-regulation and distance learning in foreign language education

2.1 Self-regulated learning and language education

While self-regulated learning (SRL) is often approached from the social-cognitive perspective (Boekaerts et al. 1999), it bears links to Vygotskian ideas of human development, such as interdependence in learning or collaborative learning (Vygotsky 1978). According to the social-cognitive paradigm, SR can be defined as "self-generated thoughts, feelings, and actions that are planned and cyclically adapted to the attainment of personal goals" (Zimmerman 2000:15). Obviously, in the context of formal education, learners' personal goals may prove to be at least partly incompatible with the goals set by the learning environment, and thus, some models of SR account for both learners' individual goals and the goals resulting from the curriculum (Persico and Steffens 2017). While some other discrepancies exist in accounting for the characteristics of self-regulated learners, it is usually assumed that they carefully self-evaluate and monitor their progress, remain motivated and focused in spite of distractions, actively search for assistance, and manage their environment so that it becomes conducive to learning (Lynch and Dembo 2004). SR is also considered from a dynamic perspective, and analysed in terms of recurring cycles of planning, monitoring, and evaluation (Carneiro and Steffens 2013). The cyclical nature of SR implies that learners' efforts to self-regulate are cumulative and ultimately contribute not only to skill development, but also to an increase in learners' self-efficacy (Zimmerman and Kitsantas 1997). The following phases of SR can be distinguished (Zimmerman 2000):

- forethought, which encompasses goal setting, preparing for the actual learning, and choosing optimal learning strategies;
- performance, which involves self-monitoring and self-assessment;
- self-reflection, which consists in interpreting the results of one's own self-assessment, and has a potential to trigger future forethought goals.

Pintrich's (2004) framework for assessing students' motivation and self-regulated learning refines the *Performance* phase and splits it into two stages of *Monitoring* and *Control*. The former is assumed to involve maintaining cognitive, metacognitive, motivational, and affective awareness as well as self-observation of behaviour, whilst the latter pertains to selection and application of learning strategies and regulating effort. It is the quadruple framework for the SRL process

that underlies the design of the research instrument employed in the present study, i.e. the *Self-regulation Formative Questionnaire (SRFQ)* (Gaumer Erickson and Noonan 2018). These processes are understood to be environmentally conditioned and to work in the context of specific tasks (Pintrich 2004:390). SRL is also reported to depend on specific learner characteristics, including prior knowledge and learning experience, goal orientation, and learner control (Carneiro and Steffens 2013), as well as influence academic achievement (Winters, Greene and Costich 2008). Importantly, although the capacity to self-regulate in learning is unlikely to exist on its own or self-develop, it can be enhanced (Andrade 2014).

While SR was embraced with enthusiasm by educational psychologists (Boekaerts 1997), its potential was only gradually recognized in foreign language education, mostly because of its interrelationship with learner autonomy (MacIntyre, Noels and Clément 1997) and its impact on maintaining motivation (Dörnyei 2001). It was not until the call for a paradigm shift in investigating strategic language learning was made, though, (Dörnyei 2005) that the construct of SR truly entered the language learning realm. While the proponents of the change insisted that the new approach was more theoretically grounded and involved an application of a methodologically superior tool for the measurement of strategic learning in comparison to traditional language learning strategy (LLS) scales (Tseng, Dörnyei and Schmitt 2006), a number of LLS researchers expressed their reservations. Not only was the potential of investigating the behavioural aspect of SR through further strategy studies noticed, but also researchers warned that bringing LLS research to a halt would actually result in replacing some questioned, but nonetheless, well-established taxonomies, with others, still not deprived of imperfections and lacking definitional clarity (Rose 2012). Importantly, strategy researchers did not ignore the emergence of a new research perspective – on the contrary, it was granted that, as a matter of fact, LLS and SR researchers explore different parts of the same process (Gao 2007). While it had long been known that being a self-regulated learner requires not only the pursuit of task-specific learning goals, but also employment of appropriate LLS (Lynch and Dembo 2004), adjustments to the models of strategic learning were made by the reconcilers (Oxford 2017, 2011), and it was proposed that SR and LLS should be seen as complementary rather than competing research constructs (Przybył and Urbańska 2020).

According to Oxford (2011:15), a self-regulated language learner actively participates in the learning process and focuses on their learning goals through exerting control over not merely different aspects of learning, but also their own relevant beliefs (behavioural and covert SR). Ideally, such a learner is also able to make strategic choices taking into account their learning goals, their specific needs, their individual characteristics, and the specific demands of a given task or learning context (Oxford 2017:115). Oxford's (2011, 2017) Strategic Self-Regulation (S²R) Model capitalises on insights from various research perspectives. In particular, its proximity to the social-cognitive stance rests on accounting for the personal, behavioural and environmental processes as pillars of SR (Bandura 1986),

awareness of the importance of metacognition and self-efficacy beliefs in SRL (Zimmerman 1995) and recognition of the stages of the SR cycle, including planning, control and reflection (Zimmerman 2000). Consequently, it appears that employing the social cognitive perspective in order to investigate language learners' SR can, indeed, provide valuable insights into the nature and the variability of the process.

2.2 Distance and online learning in language education

The basic, distinguishing feature of DLL consists in the separation of the learner from the course instructor (White 2003), which creates a number of challenges. Those identified by Hurd (2007) include experiencing remoteness and isolation, communicative difficulties, and a possible infringement of the social dimension of language learning, consisting in limited opportunities for immediate feedback and handling ongoing difficulties. Other threats which can impede the learning process may result from profusion of material, cognitive overload, insufficient IT skills, unequal participation patterns, losing balance between synchronous and asynchronous environments/activities, limited interaction, anonymity, and insufficient (institutional and methodological) support for both learners and teachers (Hauck and Hampel 2008). At the same time, the balance between the scope of control executed over the learning process by the learners and by the educators shifts towards learner empowerment (Means et al. 2010).

Since compulsory shift towards online education in 2020 largely disorganised the lives of both students and educators, it bears the marks of a crisis situation, and is likely to result in the activation of defence mechanisms, and arousal of strong emotions, including, in the first place, anxiety (Poleszak and Pyżalski 2020). This notwithstanding, distance and online education both have established presence in the field. Educational solutions implemented due to COVID-19 can, indeed, at least partly rely on past experiences of institutions which have been offering distance education, especially as the level of learners' SR determines achievement in DLL (Rösler 2007). Some implementable practices include ensuring a proper quality of educational platforms and not limiting their role to storing materials, counteracting digital exclusion in certain demographic groups and geographical areas, preventing discrepancies in computer literacy, and material aid for learners and teachers deprived of sufficient hardware or software (Tomczyk 2020). Perhaps even more importantly, a well-established theoretical background exists which, under the new circumstances, can prove extremely relevant in closing the gap between the learner and the teacher and, also, between the learner and other learners (Andrade and Bunker 2009). According to the theory of transactional distance (Moore 1919, 1973), three key variables can be distinguished in accounting for distance education:

- *dialogue*, i.e. the interaction between learners and teachers which involves communication technologies and may result in creating knowledge;
- *structure*, which translates as the degree of flexibility in the educational objectives of a given course and, at the same time, the extent to which the same course meets the needs of a given learner's individual needs;
- *learner's autonomy*, understood as the extent to which distance learners participate in making crucial decisions about learning, including what, how, and how much to learn.

Similarly to the model of strategic learning discussed in section 2, the above framework for investigating distance learning can also be linked to the social-cognitive perspective on SRL. According to Andrade and Bunker (2009), language learners can improve both their capacity for autonomy and language proficiency by making use of the six dimensions of SRL, i.e. motive, method, time, physical environment, and performance (Zimmerman 1994).

2.3 Self-regulation in distance and online language learning

Distance and online education have both contributed to the creation of contexts which facilitate lifelong learning, but at the same time, they strongly rely on learners' SR (Lynch and Dembo 2004). On the one hand, SR enjoys institutional recognition in the EU, particularly with respect to learning to learn and initiative-taking, and online education is largely demand-driven and embraced by individuals keen to seize new educational opportunities (Andrade 2014). On the other hand, the shutdown of universities in the spring of 2020 and the compulsory shift to online and distance education were principally situation-driven, if not enforced, or involuntary, from the perspective of students and educators.

Online learning could prove particularly challenging in the area of language education, which involves learning about language systems and structures, but at the same time, is embedded in the social context (Hurd 2007). In its early years, DLL, which was back then entirely asynchronous, was burdened with the risk of learners' disengagement, largely due to their being denied the opportunities to participate in speaking practice activities, sharing difficulties or being given immediate support (Hurd 2005). Even though technological development enabled the language learners and teachers to interact synchronously, it is still argued that the key defining feature of DLL remains the absence of direct and ongoing mediation of learning experiences by a teacher (White 2014:539). Also, as pointed out by Pleines (2020), it remains challenging to assess the degree to which vicarious learning, understood as witnessing the learning experience of another learner, takes place in online language education. Finally, from an individual's perspective, language learning experience involves not only active involvement, but also concentration and a great deal of patience, and thus, can be viewed as an investment of learner resources with ego depletion at stake (Piechurska-Kuciel 2018). In view of all of the above, reports of relatively limited progress attained by the participants of online educational initiatives in the area of foreign language learning (Carneiro

and Steffens 2013) and considerable dropout rates (Budiman 2018) do not come as surprising.

3. Methodology

3.1 Research questions

Research in COVID-19-enforced online educational environments is necessary in order to diagnose entrance levels of language learners' SR in DLL and refer them to corresponding levels in standard conditions. Findings can be used to identify any areas suffering from insufficient levels of dialogue or structure, and thus prone to inefficient handling of the challenges entailed in online language education. These assertions are also compatible with the rationale of the study described in the present paper, which aims to answer two research questions:

- RQ 1: Are the levels of language learners' SR in COVID-19-enforced online education significantly different from those in standard circumstances?
- RQ 2: In which of the phases of SRL do university students encounter greatest difficulties:
 - a) in standard conditions?
 - b) in COVID-19-enforced online education?

3.2 Participants

The participants in the study included a representative sample of 321 BA and MA volunteer students of a linguistic faculty of one of the largest Polish universities, native speakers of Polish, Belorussian, Russian, Ukrainian, and Turkish, who reported German, English, Russian, Korean, Swedish, Norwegian, French, Polish, Spanish, Italian, Ukrainian, Hebrew, Vietnamese and Japanese as their majors. In terms of demographic characteristics, they were mostly young adults (mean age: 21.56; SD=2.89), more frequently women (81.6%) than men.

3.3 Instruments

Participants were asked to complete an online questionnaire consisting of a section dedicated to background information (age, gender, place of residence, the language chosen as a major, and self-assessed attainment operationalized as CEFR level) and the Polish adaptation of Gaumer Erickson and Noonan's (2018) *Self-regulation Formative Questionnaire (SRFQ)*. The *SRFQ* was used twice since participants were specifically asked to reflect on their SR in standard education and, afterwards, again, in COVID-19-enforced online learning. Designed as an introspective tool for the measurement of learners' perceived proficiency in SRL, the *SRFQ* scale consists of four subscales dedicated specifically to respondents' *Planning (P)*, *Monitoring (M)*, *Control (C)* and *Reflection (R)* in the learning process, each of which originally contains one or two negatively worded items to be reversed in analysis. Sample items include: *I plan out projects that I want to complete (P)*, *I keep track of how my projects are going (M)*, *I do what it takes to get my homework*

done on time (C) and I think about how well I'm doing on my assignments (R). Since in the original validation of the SRFQ questionnaire (Gaumer Erickson et al. 2018), the reliability of the *Planning* subscale proved to be slightly less than satisfactory (Cronbach's alpha, $\alpha = 0.63$), two questions were added to the scale: P6 - *When I plan to study, I try to do it with a positive attitude* and P7: *When I plan to study, I consider different strategies and techniques of studying*. Responses to all questions were given on a 5-point Likert scale, ranging from 1 ('not very like me') to 5 ('very like me'). Hence, the total number of items amounted to 24 for both standard and distance learning, and a maximum of 120 points/ a minimum of 24 points could be scored. The overall reliability of the scale was measured in terms of Cronbach's alpha, which amounted to $\alpha = 0.878$ for standard learning and $\alpha = 0.930$ for distance learning. The reliability coefficients (α) for particular subscales are presented in Table 1 for both standard (S) and distance (D) learning.

Table 1. Reliability coefficients for SRFQ subscales (standard and distance learning)

Planning	Monitoring	Control	Reflection
$\alpha_S = 0.671$	$\alpha_S = 0.687$	$\alpha_S = 0.690$	$\alpha_S = 0.674$
$\alpha_D = 0.779$	$\alpha_D = 0.817$	$\alpha_D = 0.797$	$\alpha_D = 0.778$

Content validity of the eight subscales was examined first by calculating bivariate correlations between item values and total subscale scores, and, afterwards, checking the significance of the two-tailed test, and second, by comparing the values of the correlations with critical values for the correlations ($p < 0.05$; $df = 2$). On the basis the above procedures it was inferred that all the items met the criteria and the adaptation of the *SRFQ* was a valid instrument in terms of content validity.

3.4 Procedures

Under the permission of the relevant university authorities, a fully anonymous survey was created online and embedded on a faculty website. Data collection started in May 2020, two months after the whole university had switched to online education, and finished at the end of the term, i.e. by the end of July 2020. In order to improve the response rate, links to the survey were also made available on social media and sent to members of staff. Students were informed about the purpose of the study in its preamble and encouraged to participate, but at the same time they were assured that the study was entirely voluntary and granted full confidentiality. No time limit was established to complete the survey.

Several ways of counteracting exposure effects were implemented in adjusting the questionnaire. To start with, buffer questions were introduced between the two corresponding parts of the questionnaire (Wänke and Schwarz 1997), and the investigated students were asked to reflect on their language learning experience in their own words. In order to reduce the negative effect of item exposure (Morrison and Embretson 2018), participants were not explicitly informed that the part of the questionnaire dedicated to online learning consisted of questions worded in exactly the same way as the part addressing standard education. Moreover, the sequential

mode of survey completion guided participants to progress to the following questions rather than switch between any questions of their own choice.

Data was recoded and computed in IBM SPSS Statistics ver. 26. Since the distributions of all the analysed data sets, P, M, C, and R – in standard and online learning – turned out to be significantly different from normal (Shapiro-Wilk test, $p < 0.05$), the calculated descriptive statistics included minimum and maximum values, and medians. Consequently, non-parametric tests were used in inferential statistics. In order to answer RQ 1 and compare the investigated aspects of SRL, the Wilcoxon signed-rank test was run as a measure recommended for pairwise, non-parametric comparisons of (Larson-Hall 2015: 286). H_0 assumed that the difference between the medians of the compared data sets (PS-PD, MS-MD, CS-CD, RS-RD) amounted to 0 and thus, no significant differences existed between the compared pairs of SR subscales, while H_1 assumed the opposite. RQ 2 was addressed by comparing the distributions of the four analysed subscales – a procedure which was applied twice, for standard and online learning. The Friedman test, i.e. the non-parametric equivalent of ANOVA (Zimmerman and Zumbo 1993), was used in order to account for the differences in the levels of students' level of self-assessed monitoring, control and reflection. Mean ranks were reported for each constituent of learners' SR. Statistically significant differences were then examined in detail through pairwise comparisons of all the combinations of SR subscales. For that purpose, post-hoc Wilcoxon signed-rank tests were run again. All the reported significance values were adjusted by the Bonferroni correction for multiple tests. On the basis of the above comparisons, the mean ranks of the investigated constituents of students' SR (P, M, C, and R) were compared for standard and online conditions and the orders of the ranks were compared with each other.

4. Results

Descriptive statistics including minimum, maximum, and median values calculated for all the eight analysed variables are presented in Table 2. Additionally, Figure 1 presents the distribution of learners according to their levels of overall SR. The labels 'very low', 'low', 'medium', 'high' and 'very high' correspond to the intervals set on the basis of learners' cumulative SR scores referred to the maximum score of 120. According to the proposed interpretation (Gaumer Erickson et al. 2018), the limit values of intervals correspond to the values commonly recognized in the US grading system (A – 'excellent'; over 90%; B – good; 80-89%; C – fair; 70-79%; D – unsatisfactory; 60-69%, and F – fail or insufficient; below 60%). As can be seen, the proportion of learners whose SR can be described as low in distance education amounts to more than 30% of all the investigated participants – a figure which is considerably lower than the corresponding value of 6% for standard educational settings. Considerable differences also exist between the proportions of learners whose overall SR could be described as fair (over 36% vs over 27% for standard and distance education respectively) and good (over 26% and over 14% for standard and distance education respectively). These preliminary results already

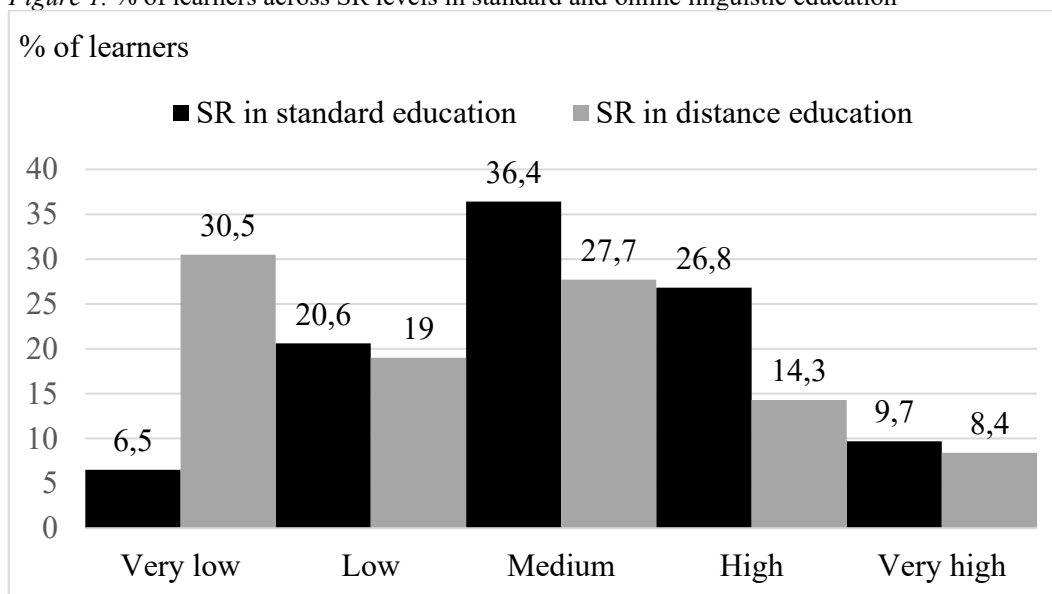
shed some light on the pronounced differences in SR levels under standard and COVID-19-enforced DOLL.

Regarding RQ 1, the results of the Wilcoxon signed-rank test results confirmed statistically significant differences between each four pairs of SR constituents in standard and distance learning ($p < 0.05$). Since the reported median values were each time higher for standard than online conditions (see Table 2), it can be concluded that the investigated learners reported significantly higher levels of SR in standard conditions than in COVID-19-enforced online education.

Table 2. Descriptive statistics calculated for SR subscales and learner' overall SR

Scale/Values	Minimum	Maximum	Median
Planning (S)	12	35	26
Planning (D)	9	35	23
Monitoring (S)	9	30	23
Monitoring (D)	6	30	21
Control (S)	7	30	22
Control (D)	7	30	21
Reflection (S)	8	25	20
Reflection (D)	5	25	19
Overall SR (S)	44	120	91
Overall SR (D)	32	120	84

Figure 1. % of learners across SR levels in standard and online linguistic education



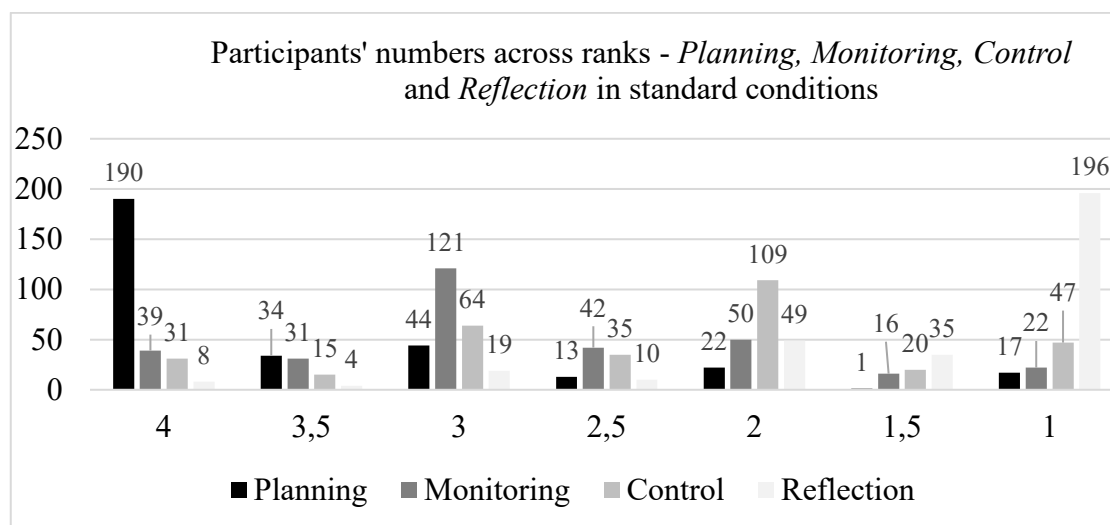
Applied in order to address RQ 2 and investigate the differences in the levels of participants' *Planning*, *Monitoring Control* and *Reflection*, the Friedman test revealed that learners' SR in these four areas varied considerably. Two-way analysis of variance by ranks confirmed significant differences in standard and

online conditions ($p < 0.05$; significance values adjusted by the Bonferroni correction for multiple tests). Based on the outcomes of the Wilcoxon signed-rank test run in order to answer RQ 2a, pairwise comparisons between SR constituents in standard conditions revealed that:

- learners' self-assessed level of SR in the planning stage exceeded their level of SR in the monitoring stage (69% of learners reported higher SR in planning, 18% - better SR in monitoring, 13% reported equal levels of SR);
- 76% of the investigated learners perceived their proficiency in the planning stage than in the control stage of the learning process (only 17% reported the opposite and for 7% the self-evaluation was the same);
- as many as 89% participants assessed their SR in planning as superior to their SR in the reflection stage (only 8% indicated the opposite and 3% felt equally proficient in both respects);
- 58% of the investigated students believed that they did better in terms of monitoring the learning process than controlling it (an opposite belief was expressed by 29% while 13% felt they self-regulated equally well in these respects);
- for 79% of the investigated learners the level of their self-assessed SR in monitoring the learning process was superior to the corresponding level of SR in the reflection stage (12% believed otherwise, and 9% saw no difference in this respect);
- finally, 74% of participants were convinced they were more proficient in terms of control than terms of reflection over the learning process (18% believed the opposite while 8% reported no differences regarding these two areas of self-regulatory processes).

Figure 2 summarises the above findings relating to RQ 2a. As can be seen, in terms of the perceived level of proficiency in SRL, the investigated students rated their proficiency in planning as superior to their proficiency in monitoring, which, in turn, was rated as higher than the proficiency in exerting control. The results also clearly indicated that the investigated students assessed their proficiency in reflecting on the learning process as lower than their proficiency in any other area of SRL.

Figure 1. Differences across SR stages in standard education

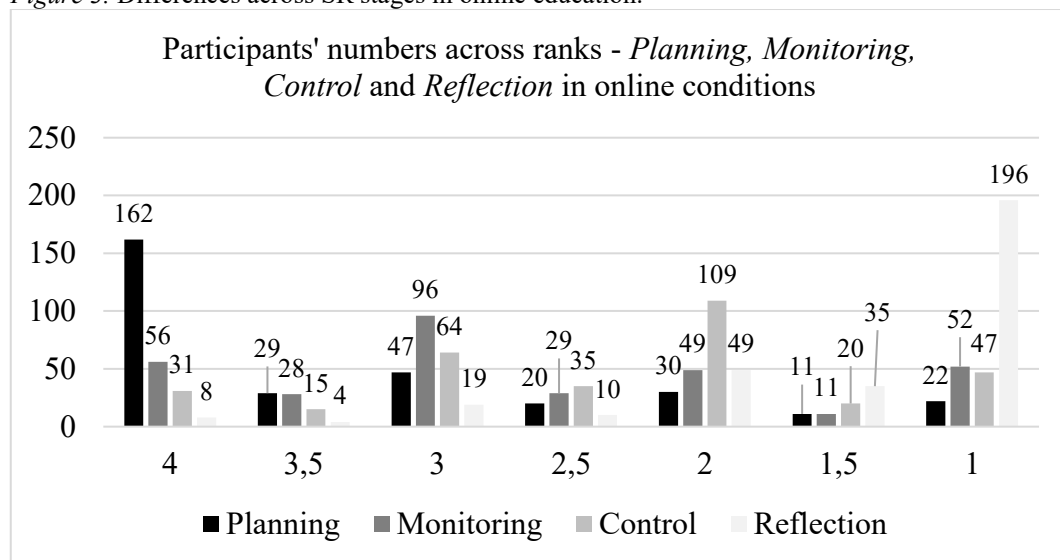


The results of the Friedman test conducted for the four constituents of SR in online learning also confirmed that significant differences existed between learners' self-reported levels of planning, monitoring, control, and reflection on the learning process ($p < 0.05$; significance values adjusted by the Bonferroni correction for multiple tests). In particular, the Wilcoxon signed-rank test confirmed the following significant differences:

- learners' perceived their proficiency in planning as superior to their proficiency in monitoring the learning process (62% of learners reported better planning proficiency while 30% - better monitoring proficiency and 8% reported equal ability);
- 71% of participants believed that their proficiency in planning learning exceeded their proficiency in controlling it (23% expressed opposite beliefs and 6% experienced no difference in this respect);
- more than 80% participants considered their proficiency in planning as superior to their proficiency in reflecting on the learning process (14% indicated the opposite and nearly 6% felt equally proficient in both respects);
- 52% of the investigated learners reported that they did better in terms of monitoring the learning process than controlling it (the opposite view was expressed by 37% while 11% felt their level of SR was equal in both respects);
- 70% of the perceived their level of proficiency in monitoring their learning as superior to their proficiency in reflecting on it (24% believed the opposite and 6% saw no difference in this respect);
- finally, 68% of participants assessed their control proficiency as higher than their proficiency in reflecting on the learning process (21% believed the opposite while 11% reported no differences in this respect).

Figure 3 reflects the above findings relating to RQ 2b. As can be seen, the investigated students reported higher SR levels in planning the learning process than in its monitoring, and slightly higher levels of SR in the monitoring stage than in the control stage. The level of SR in the reflection was assessed by the investigated students as lower than in any other area of SR. All in all, the stages of learners' SR followed the same pattern in standard and distance education, as the investigated students were convinced they were able to plan better than monitor their progress, their SR in the monitoring stage was better than their SR in the control stage, and reflection remained the area of SRL which could be considered as particularly neglected by the learners.

Figure 3. Differences across SR stages in online education.



5. Discussion

According to the evolutionary perspective on SR, as agents individuals aim to act purposefully to improve the fit between the self and the environment, which involves adapting to changes in settings, environmental contingencies, and in interpersonal relationships (Baumeister and Vohs 2012). With hardly any training offered in advance, under the COVID-19-enforced shift to online education university students were pressed to become active decision makers of how to make use of online education, especially regarding its multimodality and access to global resources. With regard to the existence of statistically significant differences between the corresponding pairs of SR constituents learners' overall SR in standard and online education, the results of the study clearly show that the investigated students have not yet adapted to the imposed environmental change. Moreover, the transition across the four analysed phases of SR, from planning, through monitoring and control, to reflection, appears to be more challenging in online settings. In order to account for the difficulties that they are likely to encounter, it is essential to consider the specific context of technological media and its impact on both the process of learning and the use of language. Regarding the latter, allowing for

synchronous and asynchronous communication, the spatial and temporal aspect of interaction have both grown in (Baron 2010) and, hence, affected both the distance and structure discussed in section three of the present paper. As asserted by Chun et al. (2016), presence is experienced differently in online language education and in face-to-face communication, and, consequently, shifting to digital technologies requires its users to renegotiate interactional time frame conventions. Also, argued to be an essential trigger of learners' intrinsic motivation and a booster of learner autonomy (Nakata 2006), the social dimension of language learning is at stake when DOLL is implemented with little prior preparation. This corresponds to the view according to which students who maintain their social relationships with others at schools and universities are likely to perform better academically than those who do not and therefore miss out on opportunities to co-construct knowledge or negotiate meanings in the target language (Liu and Lan 2016). Finally, part of the novelty of the online learning experience consists in the necessity for language learners to develop not merely the knowledge and skills with respect to various linguistic skills and subsystems, but also "a disposition for paying critical attention to the culturally encoded connections among forms, contexts, meanings, and ideologies in a variety of material mediums" (Chun, Kern and Smith 2016: 66).

While elaborating on the challenges involved in online education surely sheds some light on the significantly lower level of SR in online education in comparison to standard education, it does not change the final conclusion of the study, which remains consistent with the observation made by (Yot-Domínguez and Marcelo 2017: 7): "university students are not inclined to using technologies when regulating their own learning process, even when they are regular users of digital technologies for social, personal and leisure activities, among others".

The results of the present study which relate to RQ2 clearly show that the investigated students' assessment of their own proficiency in SRL differs across the areas of self-regulatory processes of planning, monitoring, controlling and reflection. The tendency observed in both standard and COVID-19-enforced online education remains the same: the level of SR deteriorates with every following phase of the process and reaches its low in the final stage of reflection. One possible reason for that could be a scarcity of activated volitional processes which could enable students to focus their attention and concentration on specific tasks despite individual or contextual distractors, particularly abundant in online education (Zimmerman 2011). Also, students may not be familiar with the monitoring strategies that facilitate task execution, even though these may be as simple as taking notes when dealing with online texts in order to check comprehension and progress (Justus 2017). Moreover, learners' repertoire of monitoring strategies may not be inclusive of motivational strategies, such as self-talk or environmental structuring (Wolters 2003), which could prove particularly useful under the circumstances of an enforced shift from one system of education to another.

The relatively low level of control could be accounted for from multiple perspectives. Firstly, since self-control is recognised to involve the use of such strategies as self-instruction, seeking help or self-consequating (Yot-Domínguez

and Marcelo 2017), it could be inferred that the investigated students rarely ask instructors or peers for help and/or remain inefficient in developing adequate learning skills by themselves. Moreover, under the COVID-19-enforced online learning circumstances, they might fail to develop strategic self-supervision or self-correction skills since error correction tends to rely on the teacher rather than on the learner (Bohnensteffen 2010: 75), and, especially in asynchronous education, the opportunities to engage in conversation with the instructor and ask for clarifications concerning corrective feedback, become limited. Secondly, volitional control needs to be exerted over thoughts and actions which might impede goal achievement due to their inconsistency with the level of students' motivation and needs (Kehr 2004). Characterised with significantly lower control than planning levels, the investigated students are therefore likely to be struggling to act against competing intentions and cognitions and experience difficulties executing the course of action towards the initial learning aim (Justus 2017). Finally, it appears that lack of opportunities to reflect, both in standard and online education, constitutes the main reason for the investigated learners' overall disregard for reflection. It has been argued that reflection needs to be facilitated explicitly and students, rather than being equipped with a capacity to self-regulate in this respect, need to be assisted in the development of an orientation by considering their own experiences and beliefs (Kohonen 2007). Indeed, conscious exercise of reflection is rare in the process of mastering a foreign language, and reflection as such most often originates from misunderstandings in acts of communication (Myczko 2015). Left without opportunities for reflection, university students are exposed to the risk of thoughtlessly relying on some implemented educational routines and their developmental potential becomes limited (Cook-Sather 2008)

6. Conclusions and pedagogical implications

The results of the study indicate that unless action is taken, a considerable proportion of university students are unlikely to self-regulate their learning behaviours. This relates in particular to all the phases of the SR process which follow planning, and to COVID-19-enforced online education. Learners could benefit from a framework for the development of their metacognitive skills if it helped them understand their study goals, particularly those deemed as unattractive or non-essential (Justus 2017: 149). From the practical angle, syllabi and course materials are likely to enhance SRL if they can be used as navigators through the learning process – and familiarize the learners not merely with the contents to be studied, but also with the 'whys?' and 'hows?' (Panadero 2017). For that purpose, transparency of and educational goals and demands is required as a prerequisite – and certain criteria need to be met no matter the medium of instruction. These include a proper level of structure, meaningfulness of headings or section titles, plannability, references to the meaning and functions of specific course sections, cross references, availability of orientation training and strategic advice, encouragement and space for reflecting on aims, methods and self-evaluation, and, finally, tools for making decisions and choosing between options (Chudak 2007).

Learners' proficiency in monitoring the learning process could, in turn, benefit from the implementation of time management strategies. Among them, priority setting checklists and diaries are recommended as useful tools since they enable learners to highlight essential tasks, reflect on their urgency, establish the order in which they should be approached, consider time allocation, and, generally, self-assess their efficiency in managing their own time resources (Cottrell 2003; Little 2011).

Students' low levels of control over the learning process can be linked to the frequent assumption about their readiness for independent learning as a natural by-product of becoming a young adult rather than a result of conscious preparation for the context of independent learning (Glynn 1985). A number of university students find themselves at least initially challenged because of the necessity to take more control over their study and leisure time, make a number of choices regarding study not merely the place and time to study, but also the study contents, and may require assistance in making choices about the amount of time and effort to be allocated to specific subjects or topics (Cottrell 2017). This notwithstanding, it is possible to facilitate control over the attainment of long-term educational goals through the application of revision strategies, involving the use of multiple modalities, memory triggers, and former test papers (Cottrell 2003). While a number of relevant handbooks of study skills exist, which address both general study skills and skills required in the study of particular languages (Childs 2008; Means et al. 2010), students could benefit from support in making environmental adjustments required by the online mode of education.

Whereas language educators have long been aware of the importance of reflection (Myczko 2010), it remains the domain of SR which is severely neglected by the university students, some of whom may tend to oversimplify it, treating it merely as some unstructured afterthoughts. On the contrary, critical reflection should be characterized by being pertinent to a selected aspect of the learning experience, enabling learners a change of perspective, rethinking of their role or position, capitalizing on newly acquired knowledge or skills, deepening their understanding of significant concepts, and, possibly, resulting in amendments to the learning process (Cottrell 2017: 188). Although attempts have been made to incorporate reflection into foreign language education through the development of the European Language Portfolio (ELP) (Little 2011; Schneider and Lenz 2001) and indeed, all its components encourage students' reflectivity and self-evaluation skills (Marciniak 2010), its implementation was only successful to a limited degree (Mystkowska-Wiertelak and Pawlak 2014). Educational researchers therefore face the challenge to develop alternative instruments to trigger reflection, and perhaps the potential of blogs or other tools for socially framed reflection (Cottrell 2017:209) should be considered. Specifically for online language education, Lai et al (2014) recommend using e-learning portfolios and self-reflection diaries, since, as they believe, these tools truly support students' autonomous language learning.

One limitation of the present study clearly consists of its reliance on a single type of introspective research instrument. While the constraints of the present paper make it impossible to supplement the findings with insights from a qualitative

perspective, further research seems inevitable for the purpose of data and method triangulation so as to account for a more thorough understanding of causes of relatively low levels of nearly all phases of SR. Once enough data is gathered, strategies of coping with the compulsory transition from standard to online education for both learners and educators should be elaborated.

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