Journal of Academic Writing
Vol. 5 No 1 Spring 2015, pages 74-85

Writing at Portuguese Universities: Students' Perceptions and Practices

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Abstract

In Portuguese higher education, teachers from different scientific areas recognize that their students have difficulties with writing. Nevertheless, preparing students for academic writing is not a priority and any intervention depends more on the interest of particular teachers than on any institutional policy. The development of a more institutional approach to academic writing in Portugal will imply a deeper knowledge of the multifaceted reality of the students' situation, involving identification of their own perceptions of their writing processes and of the academic writing practices they are subject to. This is the aim of our study, based on 1150 students' answers to a questionnaire about literacy practices in Portuguese higher education.

Our results show that students seem to be conscious of the procedural nature of writing and of the role and importance of planning, composing and reviewing in the course of their writing processes. As for their perceptions about institutional interventions aimed at fostering writing abilities and teacher feedback on their written work, the answers to the questionnaire allow us to conclude that such support is not frequently offered. There are, however, some differences in the way these issues are considered across the various fields of study.

Introduction

University students' problems with writing have been identified and discussed for a long time all over the world. These problems concern either knowledge acquisition processes or knowledge expression processes and cause many students to fail (Castelló and Monereo 1999, IACS 2002, Boch and Piolat 2005, Carvalho and Pimenta 2007, Carvalho 2008, Russell et al. 2009, Carrasco and González 2011, Carvalho 2012 and Vega, Bañales and Reyna 2013).

To overcome these difficulties, several interventions have been developed in various higher education institutions in different countries. Students have been offered the opportunity to improve their writing in writing centres, with courses or seminars specifically focused on the writing processes or through the development of strategies integrated into their content courses. These interventions may either involve students in tasks related to the different aspects of the writing process or acquaint them with the characteristics of the genres used in their disciplinary domain and support them in the production of different text genres for

assessment or publication (Kolb et al. 2013).

In Portuguese higher education, teachers from different scientific areas recognize that their students have difficulties with writing (Pereira, Barbeiro and Carvalho 2013), as has been described in several studies (Carvalho and Pimenta 2007, Carvalho 2008 and Carvalho 2012). Such difficulties are not exclusive to college students and may in some way be related to learning practices predominant at elementary and secondary levels. Studies focused on academic literacy at those levels show that students are much more involved in knowledge reproduction tasks than in the use of writing as an effective learning tool, and this affects their academic success and does not prepare them to confront the literacy practices they have to deal with in higher education (Carvalho 2013 and Carvalho and Barbeiro 2013).

In spite of these problems, preparing students for academic writing at Portuguese universities and polytechnics does not seem to be a priority and those interventions that do exist depend more on the interest of particular teachers and researchers than on any institutional policy. With the growing awareness of the role of writing as a learning tool and of the problems students face, some teachers have been developing work on this area within their courses, helping students to involve writing in knowledge construction processes (Rodrigues 2010, Fernandes 2012 and Carvalho 2012).

The development of a more institutional and systematic approach to writing in Portuguese higher education calls for a deeper knowledge of the multifaceted reality of the students' situation, involving identification of their perceptions of their writing processes and of the academic writing practices they are subject to. This is the aim of this paper.

To construct the necessary research tools we took into account the research on pedagogic approaches to writing that has developed over recent decades and the two main paths it has followed: the cognitive perspective (Flower and Hayes 1981, Bereiter and Scardamalia 1987 and Hayes 2012), focusing on the various cognitive stages activated by the writing process; and the socially oriented view (Martin 1993 and Hyland 2003) that values the uses of writing within social communities and the writers' involvement in social practices through the use of the respective text genres, taken not as forms of words, but as 'forms of life, socio-cultural regularities that stabilize-for-now (but never finally) our interactions' (Russell et al. 2009: 407).

Despite the conflicts and debates that have raged in recent years, these two orientations need not be seen as absolutely dichotomous and mutually exclusive. In fact, each perspective emphasizes certain aspects of writing and it is possible to see them as complementary, with aspects of one combining with or interpenetrating the other (Beck 2009 and Chandrasegaran 2013). As an example, we may refer to the way writers carry out planning, composing and reviewing in a process that is in some way conditioned by the context in which it occurs and takes into account those aspects that imply the choice of a certain genre and a certain register.

The cognitive or procedural perspective highlights the sub-processes that are activated when we write and draws attention to different ways of implementing and carrying out such processes. It is based on research that compares how expert and novice writers act throughout the writing process (Bereiter and Scardamalia 1987) and on quasi-experimental intervention studies focused on specific strategies designed to enhance the planning, composing and reviewing processes, such as the activation of previous knowledge, the construction of guidelines, the elaboration of concept maps, collaborative writing, peer-review, computer-assisted review, the development of metacognitive activity, etc.

By contrast, the socially oriented perspective draws attention to the importance of mastering the genres used in given contexts or communities as well as participating actively in such communities by writing in accordance with their specific discursive patterns. Beyond the individual level concerned with the development and monitoring of writing processes (Torrance et al. 2000), the enhancement of students' writing abilities should also include interaction with other members of their academic communities, taking into account the feedback that these may provide, as well as involving the institution and teachers from inside

and outside the context of the courses the students are attending. These interventions should heighten consciousness of the role that writing plays in knowledge construction and promote acknowledgement of the genres used by each academic community. The more proficient a student is in using the specific language of an academic, scientific or research community, the more he/she will be able to take part in it and be recognized as one of its members. In this paper we analyse Portuguese higher education students' perceptions about: a) *the way they perform different aspects of the writing process*; b) *the way institutions and teachers deal with academic literacy and promote students' writing abilities*.

Specific writing practices may emerge in different academic contexts and fields of study. The active participation of students as writers in these contexts implies that they master the respective discursive patterns and acquire knowledge of the appropriate text genres. Thus, it is also important to discover if the students' perceptions about writing processes and practices vary according to their fields of study. We take this as another objective of this paper.

The study

The data presented and analysed in this paper were collected by means of a questionnaire. This questionnaire was developed in the context of the *Cost Action IS0703, European Research Network on Learning to Write Effectively*, Group 2.2, coordinated by Otto Kruse and focusing on the improvement 'of written communication in education and in the workplace'. The questionnaire produced by the group was adapted to the Portuguese context and aimed specifically at understanding the factors favouring the development of expertise in writing in higher education. It was organised into different parts and covered various aspects: 1) personal information; 2) uses of writing in students' programmes; 3) writing processes and feedback; 4) text genres and writing practices; 5) students' self-assessment of writing skills; 6) students' conception of 'good writing'; 7) students' self-assessment of study skills; 8) students' perception of institutional actions towards the enhancement of academic literacy. Most questions had a Likert-scale format.

Our aim in this paper is not to analyse data about all these aspects but just those related to students' perceptions about their writing processes and about the way their institutions and teachers deal with writing and contribute to the enhancement of their writing abilities. We therefore have selected a set of items, located in different sections of the questionnaire, which concern the aspects we are dealing with and enable us to answer the following research questions:

1 - *What are Portuguese higher education students' perceptions about*:
   a) *the way they perform different aspects of the writing process?*
   b) *institutional actions aimed at the enhancement of their writing abilities and teachers' feedback on the students' written work?*
2 - *Do those perceptions vary significantly according to the students' fields of study?*

The questionnaire was distributed and answered online. An e-mail message was sent to the different higher education institutions (public and private, universities and polytechnic institutes), announcing the study and requesting dissemination of the questionnaire among their students. The response period ended in November 2011.

Despite the limitations due to the online application and the non-stratification of the sample in order to be representative of the entire Portuguese higher education student population (in its various degrees and fields of study), the number of responses obtained enabled us to take the results as a basis for reflection on the presence of writing in Portuguese higher education. Nevertheless, generalization of these results to the target population or the universe of Portuguese higher education students is not an aim of this study. Instead, we want to deepen the discussion about the role of universities and other higher education institutions in the development of academic literacy, based on some indicators retrieved from the questionnaire.

These indicators reflect the students' perspective on the issue and can be a good starting point for institutions to ponder the situation towards developing intervention in this area.

Participants in the study

Responses to the questionnaire were received from 1151 students. However, only 519 completed all the questions. In our analysis we consider, for each item, the corresponding number of responses obtained. Of the participants, 820 (71.2%) were female and 285 (24.8%) were male (in 44 cases there was no response to this question). As for the degree programmes in which the students were enrolled, the distribution is as follows: Bachelor's - 573 (49.8%); Master's - 415 (36.1%); PhD - 98 (8.5%); Post-doctoral - 5 (0.4%); Others - 5 (0.4%).

With regard to the students' fields of study, the diversity covers the main disciplines and thus provides a broad range of information corresponding perspectives on the issues under analysis: Social Sciences (including Economics) – 244 (21.2%); Engineering – 181 (16.7%); Natural Sciences – 119 (10.3%); Medicine & Health Studies – 111 (9.6%); Teacher Education – 99 (8.6%); Humanities – 85 (7.4%); Art, Design & Architecture – 80 (7.0%); Law – 66 (5.7%); Others – 114 (9.9%).

Data analysis

The data analysis respects the frequency of responses in each category. Tests were carried out using the statistical analysis software *SPSS* to answer the research questions raised, especially with regard to the possible existence of significant differences among the groups in the categories identified above. An *independent samples chi-square test* was used, as well as a *Monte-Carlo simulation test*, whenever the distribution conditions for *chi-square* were absent. A *one-way analysis of variance (ANOVA)* and *multiple comparison post-hoc tests* (LSD tests) were employed in order to identify significant differences across the different fields of study. The presence of the necessary preconditions for the *ANOVA model* was verified with the use of the *Kolmogorov-Smirnov test* for normal distribution, and the *Levene test* for variance homogeneity. Whenever those preconditions were absent, the non-parametric *Kruskall-Wallis test* was used.

Results

Students' perceptions about the way they perform different aspects of the writing process

As stated above, one of the aims of this study was the identification of students' perceptions about the way different aspects of the writing process are performed. In Table 1, we see the frequency of responses obtained through Likert scale questions regarding different dimensions involved in the production of a written text.

Table 1. Students' perceptions about the way they perform different aspects of the writing process

(1: Strongly disagree; 2: Disagree; 3: Neutral; 4: Agree; 5: Strongly agree)

Variables	1	2	3	4	5
	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)
1. I always plan before starting any written work (article/essay/paper/…)	9 (1.1)	50 (5.9)	119 (14.0)	425 (50.0)	247 (29.1)
2. I start writing immediately, in order to see how far I can get	75 (8.9)	314 (37.3)	223 (26.5)	213 (25.3)	17 (2.0)
3. I read all relevant texts before starting to write	7 (0.8)	154 (18.2)	195 (23.0)	376 (44.3)	116 (13.7)
4. My ideas change during the production of a written work (article/essay/paper/…)	8 (0.9)	60 (7.1)	142 (16.7)	520 (61.2)	120 (14.1)
5. I put aside enough time to review my written work	6 (0.7)	82 (9.7)	133 (15.7)	488 (57.5)	140 (16.5)
6. I always ask for someone's feedback in order to improve my papers	25 (3.0)	95 (11.3)	193 (22.9)	397 (47.1)	132 (15.7)

The values in Table 1 show that students recognise the importance of planning (variables 1, 2, 3) and revision (variable 5), as well as the contribution of writing to knowledge construction and reconstruction and the role of feedback in the improvement of texts during the writing process. In fact, with the exception of variable 2, which is framed on the basis of an inverse logic, the choice of *agree* and *strongly agree* is predominant, with frequencies far above 50%.
In addition to identifying students' perceptions of how they perform different tasks when they write, this study aimed at discovering if there are any differences among the different fields of study as far as those perceptions are concerned. The results of the *Chi-Square test*, presented in *Table 2*, do not confirm any difference. In fact, the values of *p* for the diverse variables show that there is no significant association between the independent variable (the students' field of study) and any of the variables concerning students' perceptions about how they carry out different aspects of the writing process.

Table 2. Association of the different aspects of the writing process with the field of studies

Variables	χ^2	N	*p*
1. I always plan before starting any written work (article/essay/paper/…)	$\chi^2(32)=33.885$	846	0.377
2. I start writing (transcription) immediately, in order to see how far I can get	$\chi^2(32)=37.955$	838	0.216
3. I read all relevant texts before starting to write	$\chi^2(32)=29.767$	844	0.580
4. My ideas change during the production of a written work (article/essay/paper/…)	$\chi^2(32)=22.385$	846	0.897
5. I put aside enough time to review my written works	$\chi^2(32)=31.069$	845	0.514
6. I always ask for someone's feedback in order to improve my papers	$\chi^2(32)=43.868$	838	0.079

Students' perceptions about institutional actions aimed at the enhancement of their writing abilities and teachers' feedback on the students' written work

One other research question we are trying to answer in this paper is concerned with students' perceptions of how institutions and teachers from different fields of study deal with academic literacy and promote their students' writing abilities.

In order to answer these questions, we selected twelve items from the questionnaire, five of them framed in a Likert-scale format (*1: Strongly disagree; 2: Disagree; 3: Neutral; 4: Agree; 5: Strongly agree*), the other seven involving a frequency scale (*1: Never; 2: Rarely; 3: Sometimes; 4: Often; 5: Always*). All these items concerned support for writing activities and feedback about students' written work.

Table 3. Students' perceptions about institutional actions aimed at the enhancement of their writing abilities and teachers' feedback on their written work

Variables	1	2	3	4	5
	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)
(1: Strongly disagree; 2: Disagree; 3: Neutral; 4: Agree; 5: Strongly agree)					
1. My teachers help me to structure my written work	101 (11.9%)	209 (24.6%)	241 (28.4%)	257 (30.3%)	40 (4.7%)
2. My teachers give me enough feedback about my written papers/essays	95 (11.2%)	193 (22.8%)	228 (27.0%)	280 (33.1%)	49 (5.8%)
3. My teachers' feedback helps me to improve my writing skills	58 (6.9%)	112 (13.2%)	175 (20.7%)	377 (44.6%)	124 (14.7%)
4. My university contributes to the enhancement of my writing skills	54 (6.4%)	106 (12.5%)	244 (28.7%)	332 (39.1%)	113 (13.3%)
5. Writing issues are frequently discussed at my university	81 (9.6%)	231 (27.2%)	265 (31.3%)	210 (24.8%)	61 (7.2%)
How often do … *(1: Never; 2: Rarely; 3: Sometimes; 4: Often; 5: Always)*					
6. you receive written instructions about how to carry out a writing assignment?	97 (11.4%)	184 (21.7%)	279 (32.9%)	260 (30.7%)	28 (3.3%)
7. you receive oral instructions about how to carry out a writing assignment?	40 (4.7%)	101 (12.0%)	302 (35.7%)	351 (41.5%)	51 (6.0%)
8. you discuss a writing assignment with your teachers?	115 (13.6%)	191 (22.6%)	256 (30.3%)	228 (27.0%)	56 (6.6%)
9. your teachers assign a writing task and demonstrate how to plan and carry it out?	239 (28.3%)	211 (25.0%)	259 (30.7%)	132 (15.6%)	4 (0.5%)
10. you get feedback about how to structure your written papers?	80 (9.8%)	171 (21.0%)	316 (38.7%)	214 (26.2%)	35 (4.3%)
11. you get feedback about the first drafts of your written papers?	156 (19.1%)	236 (29.0%)	290 (35.6%)	112 (13.7%)	21 (2.6%)
12. you get feedback about the final versions of your written papers?	41 (5.1%)	141. (17.5%)	265 (32.8%)	254 (31.4%)	107 (13.2%)

In general terms, we can see in Table 3 that answers tend to be at the lower end of the scales, with a significant concentration in the central or neutral category. This may allow us to infer that students do not recognise much support in their writing activities. Variables 3 and 4, in which students express their opinion about the importance of such support, are exceptions, having more than 50% of the answers on the higher end of the scale.

Significant differences can be found when we correlate the variables concerning the support provided by institutions and teachers to enhance the students' writing abilities with the students' field of study. As we can see in *Table 4*, the value of *p* that results from the *Chi-Square test* lies below 0.05 for most of the variables, except for three of them (variable 6, *written instructions about how to carry on a writing assignment*; variable 7, *oral instructions about how to carry on a writing assignment*; variable 12, *feedback about the final versions of written papers*).

Table 4. Association of the different variables concerning institutional and teachers' support with the field of study

Variables	χ^2	N	*p*
1. My teachers help me to structure my written work	$\chi^2(32)=58.543$	844	0.003
2. My teachers give me enough feedback about my written papers/essays	$\chi^2(32)=51.240$	841	0.017
3. My teachers' feedback helps me to improve my writing skills	$\chi^2(32)=82.615$	863	0.001
4. My university contributes to the enhancement of my writing skills	$\chi^2(32)=95.118$	845	0.001
5. Writing issues are frequently discussed at my university	$\chi^2(32)=138.831$	845	0.001
How often do …			
6. you receive written instructions about how to carry out a writing assignment?	$\chi^2(32)=46.546$	844	0.047
7. you receive oral instructions about how to carry out a writing assignment?	$\chi^2(32)=38.392$	841	0.202
8. you discuss a writing assignment with your teachers?	$\chi^2(32)=88.199$	842	0.001
9. your teachers assign a writing task, and demonstrate how to plan and carry it out?	$\chi^2(32)=87.036$	841	0.001
10. you get feedback about how to structure your written papers?	$\chi^2(32)=63.328$	813	0.001
11.you get feedback about the first drafts of your written papers?	$\chi^2(32)=51.812$	812	0.015
12.you get feedback about the final versions of your written papers?	$\chi^2(32)=35.160$	805	0.321

As far as the support provided by teachers in the initial stages of the writing process (variables 1, 3, 8, 9, 10, 11) is concerned, results show variation across the fields of study. The same happens with variable 5, which concerns discussion about writing issues at the university. The students' perspective on the contribution of the institutions and their teachers to the promotion of their writing skills (variables 3, 4) also varies according to the area of study.

Since the statistical tests have shown significant differences with regard to the association of the field of study and some of the dependent variables, it is important to systematize how they contrast with each other. This is done in *Table 5*, which is based on the results of the *one-way analysis of variance (ANOVA)* and the *multiple comparison post-hoc LSD tests* that enabled the identification of the groups that differ significantly from the others (at the 0.05 level, at least) with regard to each of those variables[1]. In the correspondent crossing cells, we can see which variables differ significantly when we compare the various pairs of fields (in the lower left white zone) and the total number of variables that differ significantly in these comparisons (in the upper right grey zone).

[1] The results of the *one-way analysis of variance*, concerning the different variables, are the following : 1) F(8.835)=4.826 p=.000; 2) F(8.832)=2.473 p=.012; 3) F(8.833)=6.425 p=.000; 4) F(8.836)=9.357 p=.000; 5) F(8.835)=15.472 p=.000; 8) F(8.833)=5.018 p=.000; 9) F(8.832)=8.099 p=.000; 10) F(8.804)=4.498 p=.000; 11) F(8.803)=3.873 p=.000.

Table 5. Significant differences across the fields of study

	Number of variables with significant differences across the fields							
	Social Sciences	Engineering	Natural Sciences	Medicine & Health Studies	Teacher Education	Humanities	Art, Design & Architecture	Law
Social Sciences		*2*	*3*	*8*	*0*	*0*	*7*	*5*
Engineering	4,5		*0*	*7*	*3*	*1*	*1*	*5*
Natural Sciences	4,5,9			*7*	*2*	*1*	*2*	*4*
Medicine & Health Studies	1,2,3,4,5 ,9,10,11	1,2,3,4,5, 9,11	1,2,3,4, 5,9,11		*8*	*8*	*1*	*3*
Teacher Education	—	4,5,10	4,5	1,2,3,4, 5,9, 10,11		*0*	*7*	*6*
Humanities	—	5	5	1,2,3,4, 5,9, 10,11	—		*4*	*3*
Art, Design & Architecture	1,3,4,5,9 ,10, 11	9	3,9	2	1,3,4,5, 9, 10,11	4,5,9,10		*2*
Law	1,3,5,8,9	1,4,5,8,9	3,4,8,9	4,5,8	1,3,5,8, 9, 11	5,8,9	4,8	
	Variables with significant differences across the fields							

According to the table, the fields of *Social Sciences*, *Teacher Education* and *Humanities* do not differ significantly from each other; the same is true when we match *Engineering* and *Natural Sciences*. On the contrary, there are significant differences concerning several variables when we match the domain of *Medicine/Health Sciences* and most of the other domains. *Medicine/Health Sciences* is the field that is most different from the others. *Law* is also an area that differs from the others, especially when compared with the fields of *Teacher Education*, *Social Sciences* and *Engineering*. In variable 8 (discussing writing assignments with teachers), *Law* differs significantly from all the other areas. Another remarkable difference is that between Arts*/Design/Architecture* and *Social Sciences* or *Teacher Education*.

Taking these results into account but lacking space to analyse those nine variables in detail, we will try to summarise the most significant findings:

- **Teachers' support in structuring written texts (variable 1)** - less support is found in the areas of *Medicine/Health Sciences* and *Law*; by contrast, in the fields of *Humanities*, *Teacher Education* and *Social Sciences*, the teachers' support is rather strongly acknowledged.
- **Presence of feedback on written papers (variable 2)** - there is a significant difference when we compare the area of *Medicine/Health Sciences*, in which feedback is referred to as being less frequent, with all the others except *Law*.
- **Role of teachers' feedback in enhancing students' writing skills (variable 3)** - the same significant difference applies to the area of *Medicine/Health Sciences*; in the areas of *Law* and *Arts/Design/Architecture*, the number of students choosing the *neutral* category may indicate a lower recognition of the importance of this support.
- **Role of the institution in enhancing students' writing skills (variable 4***)* – the distributions are consistent with what was said about the previous variables: a higher frequency of categories at the bottom end of the scale in the fields of *Medicine/Health Sciences*, *Law* and *Arts/Design/Architecture;* by contrast, in the areas of *Social Sciences* and *Teacher Education*, higher values are found for the categories at the top of the scale.
- **Discussion of writing issues at institutional levels (variable 5)** - discussions of

writing issues are acknowledged in the areas of *Humanities*, *Social Sciences* and *Teacher Education*, more so than in the fields of *Medicine/Health Sciences*, *Engineering*, *Natural Sciences*, *Arts/Design/Architecture* and *Law*, which, according to the *chi-square test* distribution, have higher frequencies of the *neutral* and *disagreement* categories.

- **Discussion of writing assignments with the teachers (variable 8)** - in this variable, the field of *Law*, in which such practice seems rare, emerges as significantly different from the other areas in which answers tend to show regular distribution across all the categories of the variable.
- **Teachers' demonstration of how to plan and carry out a writing assignment (variable 9)** - these practices seem to be more frequent in the field of *Social Sciences* as well as in the fields of *Engineering*, *Humanities* and *Teacher Education*; on the other hand, they are said to be rare in *Medicine/Health Sciences*, *Natural Sciences*, *Arts/Design/Architecture* and *Law*.
- **Feedback on the structure of written papers (variable 10)** - this again seems to be more frequent in the areas of *Humanities*, *Teacher Education* and *Social Sciences*; significant differences are found in the fields of *Medicine/Health Sciences* and *Engineering*.
- **Feedback on first drafts of written papers (variable 11)** - *Teacher Education* is the area in which feedback on first drafts seems to be most frequent; it also seems to be rather frequent in *Humanities* and *Social Sciences*; on the opposite side, we have the fields of *Medicine/Health Sciences*, *Engineering*, *Arts/Design/Architecture* and *Law*.

Discussion

The results show that Portuguese Higher Education students' perspectives on how they carry out different aspects of the writing process do not vary significantly across the fields of study they are registered in. The role of the different components of the writing process, namely planning, composing and reviewing, is recognized by the majority of the students. Although their answers are not unanimous, the divergence is not significant, and students seem to be conscious of the procedural nature of writing process. Regardless of their field of study, students seem to be aware of the dynamism of the process and understand that the process implies more than writing down ideas directly retrieved from memory on a sheet of paper. This perception of the nature of the writing process may not, however, completely correspond to how students in fact deploy that process. The conclusions of some of the above-mentioned studies of Portuguese higher education students' writing difficulties (Carvalho and Pimenta 2007, Carvalho 2008, Carvalho 2012 and Pereira, Barbeiro and Carvalho, 2013) show various problems that arise at different levels of the writing process, pointing out the predominance of processes of knowledge reproduction and a dearth of knowledge transformation.

Academic writing implies knowledge transformation, since changes may occur as the process is being carried out, enabling a redefinition of the writer's ideas and perspectives. Framing ideas in language by choosing from different linguistic and discursive alternatives leads the writer to consider new relationships during the process, thereby transforming and enriching his/her own knowledge. This transformational capacity is an important feature of writing, which is an effective learning tool and not simply an instrument for registering and reproducing information retrieved from other sources (Parker 2003 and Donahue 2004). As Parker (2003: 146) says, quoting Nobel laureate Roald Hoffmann, "academics do not 'do' and then 'write up' their work; rather they practice and write the discipline".

Although the writing process might be seen as something that is mostly dealt with on an individual basis, this does not mean any rejection of the contribution of others. The search for a prospective or external assessment to improve written work is very broadly recognized. Generally, the results that concern institutional and teachers' support show that the answers tend to gravitate to the lower end of the frequency scale. This fact may allow us to infer that students do not sense much support in the development of their writing activities and report a lack of instruction about the writing tasks assigned and little feedback on their final versions.

This reflects a traditional approach to writing in Portuguese higher education in which the teacher's role tends to be limited to the task assignment at the beginning and evaluation or simple grading at the end.

However, there are significant differences across the different fields of study as far as this support is concerned. Our study shows the presence of different perspectives on writing in higher education and the way writing capacities may be enhanced during the writing process through reflection and discussion induced by teachers' feedback on students' written products at different stages of their construction. Significant differences can be found when we compare different fields of study. *Humanities*, *Social Sciences* and *Teacher Education* students mention some support and emphasise its contribution to the enhancement of their writing abilities. On the other hand, in the context of some important fields of study such as *Medicine/Health Studies*, *Law* and *Engineering*, teachers' support and feedback is still deficient.

Conclusion

As it is happening all over the world, issues of academic writing and the role of writing as an instrument for knowledge construction are being discussed in Portuguese institutions of higher education. We observe the current development of various interventions aimed at overcoming students' difficulties and enabling them to use writing as a learning tool and fully participate in academic and scientific communities.

As far as the individual writer is concerned (for this is students' perception of their own writing process), there are no significant differences in how students from different fields of study consider the role of planning, composing and reviewing. They seem to be conscious of the procedural nature of writing and of the role and importance of planning, composing and reviewing in the development of writing processes. However, we may question the extent to which this awareness has an effective impact on the way students write and on their written products.

The other research question focused on students' perceptions of how institutions and teachers support their writing activities and promote their writing abilities. The students' answers to the questionnaire justify the conclusion that such support is not frequently offered. There are, however, some differences in the way these issues are considered across the various fields of study at Portuguese universities. While in some areas, like *Social Sciences* or *Teacher Education*, there seems to be some recognition of the teachers' role in the enhancement of students' writing, in others, that does not seem to be the case. This means that there is still a lot to be done in the domain of academic literacy in Portuguese higher education institutions if students are to be given better learning conditions and their effective academic success is to be promoted.

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