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Writing Centres as the Driving Force of Programme Development: From Add-on Writing Courses to Content and Literacy Integrated Teaching

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Abstract

Academic writing courses and subject-matter courses have been taught independently to a large extent at many European universities following a 'study skills model' (Lea and Street 1998). An integrated approach, however, both in students' L1 (or their language of instruction) and in English (if this is not their L1), in accordance with Lea and Street's 'academic literacies model' has a number of advantages. Introducing an academic literacies model, however, is difficult to implement since it requires the joint effort of both subject-domain teachers and language teachers and involves deviating from familiar teaching methods. To implement the changes required, a three-level approach has been developed at Justus Liebig University (JLU), Giessen/Germany, as one of several measures in a university-wide project. In this approach, the university's writing centre and teaching centre take over the role of 'motors' of literacy development in all disciplines. The macro-level of this three-level approach encompasses central services provided by these centres as well as university-wide literacy development policies. The meso-level addresses programme development, and the micro-level, curriculum and syllabus adaptations for individual courses. The article provides insight into the measures to be taken at each of these levels based on a review of prior research on Integrating Content and Language in Higher Education (ICLHE) (Gustafsson 2011, Gustafsson and Jacobs 2013 and Wilkinson and Walsh 2015) and the central role that writing centres and teaching centres can play in this process.

1. Teaching Subject-domain Knowledge and Literacy – Common Practice and Desirable Approaches

It is still common practice in tertiary education to teach subject-domain knowledge and literacy, i.e. the ability to read texts, to compose texts and to learn from textual material (Portmann-Tselikas and Schmölzer-Eibinger 2008 and Preußner and Sennewald 2012), in separate courses. This does not only apply to fostering students' literacy in their mother tongue but also to literacy development in their foreign languages, especially in English as the lingua franca of international communication, which has become a requirement in our globalized world and multicultural societies.

Many subject-domain teachers continue to hold the view that students entering university are already equipped, or should already be equipped, with the level of literacy, at least in their mother tongue, that they need for writing academically and, therefore, academic literacy need not be fostered actively at university. However, we know from empirical studies such as those

by Beaufort (2007) and especially by Steinhoff (2007) and Pohl (2007)¹ that this is not the case and that academic literacy can only be acquired in the course of one's academic socialization by continuous deliberate practice of this complex set of competencies in disciplinary contexts.

Before the Bologna Reform, academic literacy in the L1 was hardly fostered actively at European universities; students had to acquire it simply by doing. After the Bologna Reform, it became obvious that this approach no longer works, if it had ever worked at all. Causes for this inadequacy are an increasing student intake in universities, which, in Germany, has risen above 50% of an age cohort, and more heterogeneous student entrance qualifications, including literacy, due to more diverse educational backgrounds. As a consequence, measures have been taken to actively foster students' literacy development. In many universities, this happens in separate courses devoted to academic writing, English for Academic Purposes (EAP) and similar add-on 'study skills' courses, which is a measure to be welcomed, although not an ideal one. This still prevailing study skills approach, founded in behavioural psychology, focuses on 'a set of atomised skills which students have to learn' and which are then believed to be transferable to other contexts (Lea and Street 1998: 158). As will be shown, however, academic literacy is inseparably connected with disciplinary discourses. Therefore, this article pleads for an approach of Integrating Content and Language (ICL) in the sense proposed by Jacobs (2005), i.e. an approach which embeds the acquisition of academic literacy into discipline-specific courses rather than teaching generic academic literacy courses.²

ICL (also ICLHE), in contrast to Content and Language Integrated Teaching (CLIL), is a concept associated with tertiary or higher education (HE), but, as Gustafsson and Jacobs (2013: iv) point out, it may insinuate that 'content' and 'language' were separable. Furthermore, they observe that each of the terms 'content', 'language' and 'integration' has been used in various senses. Therefore, in the following, the concept 'Content and Literacy Integrated Teaching' (C&LIT) will be introduced in order to emphasize that, in the approach suggested in this article, language is seen not only as a means of conveying knowledge with higher language proficiency leading to better comprehension and production, but also as a means of knowledge construction and as such inseparably connected with subject domains and the discourse knowledge associated with them. As Lillis and Rai (2011) formulate it, 'language is not a transparent conduit of disciplinary knowledge, but rather constitutive of knowledge and specific knowledge making practices'.

Following Gee (1996), the role of academics as 'insiders' of their discipline is seen as being one of inducting students as 'outsiders' into the Discourse³ of their discipline. In the present article, one of the roles that language teachers collaborating with subject-domain teachers in C&LIT are considered to have is to assist subject-domain teachers in making their implicit Discourse knowledge explicit, as suggested by Jacobs (2005, 2007a and 2007b).

¹ For similar findings based on an ethnographic case study in a South African context, see Paxton (2011).

² It is noteworthy that with regard to literacy levels, the US, about 35 years ago, was in a situation similar to the one that we encounter in Germany and other European countries today (Lillis and Scott 2007) and that in European universities many developments that US universities went through in the last 30 years have now gradually been taken over (cf. Björk et al. 2003b). These developments include the WAC (Writing Across the Curriculum) and WID (Writing In the Disciplines) movements. WAC means that literacy is not only fostered in single courses at the beginning of undergraduate programmes but progressively throughout the programmes; WID means that literacy is not only fostered in separate courses but also in an integrated manner in subject-domain courses. The developments taken over from the US also comprise the establishment of writing centres for extracurricular student support.

³ 'Discourse' (with a capital 'D') is used here following Gee's (1996: viii) definition as encompassing 'behaving, interacting, valuing, thinking, believing, speaking, and often reading and writing' in the disciplines.

What follows from these considerations is that each degree programme requires a specification of the literacy competencies that students need to have acquired after completion, either to meet the criteria of employability the programme intends to qualify for or to fulfil the entrance qualifications specified for a follow-up programme or an academic career. Ideally, the literacy levels to be attained by students need to be specified with regard to the languages in which they are needed (in Germany usually German and English plus an additional language in certain programmes), the genres that students should be able to read and produce (e.g., executive summaries, laboratory reports, academic papers, etc.) and the proficiency levels that need to be attained in each relevant language. Instruction and practice through which these qualifications can be acquired progressively then need to be integrated into these programmes in a systematic manner.

There are at least three reasons for an integrated approach, which will be analysed in Section 2 of this article, which is a plea for the integration of literacy development both in the L1 and in foreign languages into subject-domain courses. The reasons why the add-on approach still dominates in most programmes will be discussed in Section 3.

2. Reasons for Integrating Literacy Development into Subject-domain Courses

For the following three reasons literacy development should be integrated into subject-domain courses.

2.1. Motivational reasons

Students' writing performance often lags behind their writing competence. One reason for this is a lack of motivation. Motivation is created by writing assignments on topics which students have something to say about and which foster the development of competencies that they deem relevant for their future lives and transferable to coping with challenges they will be confronted with (Bazerman 1997, Beaufort 2007: 206, Johnstone, Ashbaugh and Warfield 2002 and The New London Group 1996). For general writing or language courses, topics which meet these requirements are often difficult to find for two reasons. First, the students in these courses come from different disciplines so that teachers must resort to general topics to ensure that all participants are able to say (but do not necessarily feel inclined to say) something about them. Second, teachers of such courses in most cases have a linguistic, literary studies or foreign-language teaching background and lack subject-domain specific training in another discipline, such as engineering, business administration, law, etc., from which they could have acquired the in-depth disciplinary knowledge that Beaufort (2007) refers to as 'discourse community knowledge'. If the topic students are required to write about does not represent an interesting challenge for them, their writing processes will hardly be more than linking together linguistic units following textual patterns that have been provided as scaffolding; writing becomes 'doing school' (Beaufort 2007: 144), '*l'art pour l'art*' (Kaluza 2009: 523). Thus, linguistic means are being focused on in a writing situation that, both with regard to its quantitative and qualitative cognitive demands, differs completely from a writing situation in which specific specialized information has to be conveyed to a discourse community in a precise and rhetorically convincing manner. In a writing situation of the latter type, 'meaning making' (cf., e.g., Byrnes and Manchón 2014b: 276) is the starting point, whereas in writing for the sake of making use of linguistic means following standardized textual patterns, linguistic units are focused on and meaning plays a secondary role.

If the purpose of writing assignments is not just improving students' ability to express themselves, i.e., learning to write, but writing to learn, which fosters students' in-depth analyses of subject-domain-specific information and the generation of new knowledge, then writing assignments are needed which focus on meaning making, i.e., writing assignments which create in students the desire to develop new answers and new knowledge that they are convinced of and prepared to defend (cf. Byrnes and Manchón 2014a, and especially Byrnes and Manchón 2014b: 268). Completing writing assignments unrelated to the subject-domain studied lacks what the New London Group called 'Situated Practice'; they do not exploit the epistemic function of writing (see Section 2.2) by means of which synergy effects could be achieved between literacy development and the acquisition of competencies in the discipline.

In secondary education, this insight has increasingly been made use of in Content and Language Integrated Learning (CLIL). In tertiary education, it has induced the WID movement in the US, which has been proved to lead to an increase in writing motivation among students (NSSE 2014), and various forms of ICLHE approaches (cf. Gustafsson and Jacobs 2013).

2.2. Exploiting the epistemic function of writing

Writing in tertiary education may have various functions. It is a means of documenting information, e.g. during note-taking in lectures in order to be able to learn afterwards what has been documented. It is a means of knowledge documentation, e.g., when answering questions in exams. It has a mnemonic function, e.g., when writing down vocabulary in order to be better able to remember it (Langer and Applebee 1987: 91–93, 132–133). What is of utmost importance for academic purposes, however, is its epistemic function, also referred to as its 'knowledge-constructing function' (Galbraith 1999). The NSSE studies (e.g. NSSE 2014) show that a teaching approach that integrates literacy development into subject-domain courses, as practised in the US in the WID movement, synergetically fosters the acquisition of both subject-domain-specific knowledge and domain-specific literacy. Furthermore, it promotes the transfer of knowledge acquired (Robertson, Taczak and Yaney 2014) and improves reflexivity (Hillocks 1995), competencies at the core of any academic education and training. Gage (1986: 24) described the epistemic function of writing very illustratively in the following manner:

Writing is thinking made tangible, thinking that can be examined because it is on the page and not in the head invisibly floating around. Writing is thinking that can be stopped and tinkered with. It is a way of holding thought still enough to examine its structure, its flaws. The road to clearer understanding of one's thoughts is travelled on paper. It is through an attempt to find words for ourselves in which to express related ideas that we often discover what we think.

When writing may have all these functions, why should it be left unused in subject-domain-specific courses, while at the same time, separate writing and language courses often lack motivating topics, as outlined in Section 2.1? Critical thinking, as fostered by writing, does not come automatically with the acquisition of knowledge (cf. Bereiter and Scardamalia 1993: 45). Writing is a means of helping students to transform subject-domain knowledge into subject-domain competence, i.e. the ability to think and act professionally in their respective disciplines.

2.3. Exploiting the epistemic function of writing

Since each discipline follows its own conventions and traditions and has its own practices, it is obvious that discipline-specific discourse knowledge cannot be acquired in general writing courses (cf. the models of knowledge types by Beaufort 2007: 221 and Kruse and Chitez 2012). General writing courses may focus on 'technical' aspects of writing, such as spelling, punctuation, grammar and genre conventions at a general level, and often take a deficit perspective, i.e., try to 'fix' students' writing problems following the study skills model. The skills that can be acquired in them, however, only represent a prerequisite for the completion of more demanding writing tasks and the solution of problems in the disciplines. If the above mentioned skills have been routinized or automatized, cognitive capacity in the writer's working memory will be liberated for more demanding cognitive tasks such as developing complex lines of argumentation or synthesizing information from different sources, as modelled in McCutchen's (1996, 2000 and 2011) cognitive capacity theory of writing.

In order for students to acquire the more complex competencies required to take a critical stance towards prior research in their disciplines, they have to be confronted with material from these disciplines and current discourses in them. This also requires writing assignments whose challenge consists in developing new ideas and placing them in current discourses. Such assignments thus require both subject-domain knowledge and rhetorical competencies, which are ideally fostered in integrated approaches combining the development of subject-domain competence and domain-specific literacy. By such integrated approaches, which have their origins in social psychology, in anthropology and in constructivist education (Lea and Street 1998: 158), synergy effects can be obtained. These synergy effects go beyond

academic socialization, when student writing and learning are viewed 'as issues at the level of epistemology and identities rather than skill and socialization' (Lea and Street 1998: 15).

The necessity of such an integrated approach can also be derived from situated cognition, according to which 'the acquisition of knowledge cannot be separated from the application of that knowledge in particular use contexts' (Paretti 2011). Apart from situatedness, integrated approaches which involve cooperation of subject-domain teachers and language teachers have the additional advantage of fostering students' and teachers' metacognition through the interdisciplinary exchange between the subject-domain and language teachers. As Jacobs (2007a) asserts, this exchange has the potential to rise to teachers' consciousness practices that they had routinized and to uncover the tacit rules that govern their disciplinary discourses. This rising of the tacit to consciousness is a prerequisite for addressing it explicitly in the classroom and thus for making it teachable (cf. also Paretti 2011).

3. Reasons for the Lack of Integration

Given the advantages of an integrated approach, why are subject-domain knowledge and literacy still taught in separate courses? Apart from 'territorialism' in the disciplines (Jacobs 2015: 30), there are at least three reasons for this separation, which will be outlined in the following.

3.1. The fear of literacy development at the expense of subject-domain knowledge

As explained in Section 2, the integration of literacy development into subject-domain courses does not automatically happen at the expense of the subject domain. It ensures improved acquisition of subject-domain knowledge, and it also has advantages for students' development in their subject domains, especially with regard to their subject-domain competence, which has to be distinguished from their subject-domain knowledge. Subject-domain knowledge represents a necessary but not sufficient prerequisite for acting competently in one's discipline. Students need to know how to make adequate use of the (declarative) knowledge they have, to decide what types of knowledge are required in specific situations, and to adapt what they know to new situations. Only if they know how to apply the (declarative) knowledge they have and to transfer it to new situations, can they be considered competent in their respective fields. An integrated approach may result in less declarative knowledge being conveyed. The ultimate objective of any academic education and training, however, is not the accumulation of specialized knowledge but rather enabling students to act competently in their domains. Developing domain-specific literacy in an integrated approach through challenging subject-domain-related assignments inherently fosters the transformation of declarative knowledge into procedural knowledge as it is needed for successful epistemic writing because such assignments require students to not just write down what they know but also to generate new answers in the writing process, which necessarily also has an epistemic component. Such an integrated approach should even generate the competence to acquire more specialized knowledge autonomously as needed, an asset that cannot be achieved through pure accumulation of knowledge.

3.2. Lack of remuneration for the time invested into co-teaching approaches

Co-teaching (for a sub-classification of co-teaching approaches, see Section 4.1) is more time-consuming than teaching on one's own because subject-domain teachers and writing or language teachers have to gear their approaches to each other. This extra time has rarely been recognized by university administrations by creating incentives for co-teaching approaches. Without such incentives, the number of those who are prepared to engage in co-teaching approaches is too small to achieve measurable effects, especially since teachers, as observed by Fortanet-Gómez (2011) in Spain, also seem to be reluctant to collaborative teaching because they fear that they will lose the freedom to teach the way they prefer. If subject-domain teachers and language teachers realize that they may benefit from such a cooperation because it makes tacit understandings of the conceptions within their disciplines surface (Jacobs 2005), this may increase their motivation to cooperate.

3.3. Difficulty of adapting programmes and syllabi from pre-Bologna times to current requirements

At many European universities, the Bologna Reform was implemented under time pressure and with a lack of conviction on the part of university staff that it would yield the desired effects. As a consequence, sections of existing degree programmes and course syllabi were simply transferred into the new modularized Bologna programmes in a bottom-up approach without questioning whether they would still meet the requirements of the new situation. What had worked, or was assumed to have worked, in the pre-Bologna era, however, is no longer suitable in the current circumstances. The massification of German universities, i.e. the enormous increase in student intake, and the increasingly heterogeneous educational backgrounds of students have made changes necessary. To implement such changes at the level of individual courses and modules (henceforth called micro-level), institutional support is often required (cf. Leibowitz 2011, Marshall 2011 and Fortanet-Gómez 2011). As will be outlined in the following, at least part of this institutional support can be provided by teaching and writing centres, which have been established in Europe in the wake of the Bologna Reform and which were either not available at the time when the Bologna Reform had to be implemented or did not consider it their task to support programme and curriculum development.

The success of any initiative to adapt higher education teaching to current requirements also depends on the role that teaching is given in relation to research. Boyer (1990) suggested four scholarships that the work of university faculty should consist of: discovery, integration, application and teaching. Airey (2011) uses the fourth scholarship, the scholarship of teaching and learning (SoTL), as an argument for the propagation of collaboration between subject-domain teachers and language teachers in higher education:

One of the main thrusts of SoTL is that faculty ought to treat their teaching in the same way as they treat their research. Teaching, it is argued, should not be an isolated, individual activity, but rather, should be grounded in the work of others. Further, just as research is published and peer-reviewed, knowledge about teaching and learning should also be openly shared and critiqued. For language lecturers or educational researchers, it can be argued that a major part of SoTL involves sharing of pertinent research findings with content lecturers. Similarly, for content lecturers, SoTL involves being informed about research results with relevance for teaching and learning of their discipline. Thus, I argue that SoTL can provide a natural lever for collaboration in higher education. (Airey 2011)

In German universities, higher education teaching still appears to be less valued than research. Increasing the relevance that is attributed to teaching can only be achieved by corresponding university-wide policies, examples of which will be provided in Section 4.1.

4. A Model of Implementing Content and Literacy Integrated Teaching (C&LIT)

The obstacles in the way of implementing C&LIT outlined in Section 3 have also been observed at Justus Liebig University (JLU), Giessen/Germany. JLU currently has 28,000 students enrolled in undergraduate and graduate degree programmes as well as PhD programmes in 11 faculties spanning from Social Sciences and Humanities to Life Sciences. In 2010, the Centre for Competence Development (ZfbK – Zentrum für fremdsprachliche und berufsfeldorientierte Kompetenzen) was founded which, apart from a career centre and an alumni service, includes a language centre, a centre for the teaching of 'soft skills' and a teaching centre. During the first funding period of the 'Quality Pact for Teaching'⁴ (2012–2016), the services of the teaching centre could be extended and a writing centre was

⁴ The 'Quality Pact for Teaching' is a programme launched by the German Federal Ministry of Education and Research to provide funding for adapting programmes and the teaching situation in German institutions of higher education to the intake of more heterogeneous groups of students, larger student cohorts and to improved teaching philosophies in the wake of the Bologna Reform (BMBF 2012).

founded. The teaching centre both offers courses for teachers and provides support for programme development in the faculties. It collaborates closely with the writing centre, which trains peer tutors and writing fellows, offers a 100-hour certificate programme for university subject-domain teachers in 'Providing writing support in higher education', including the teaching of writing-intensive seminars, provides an extracurricular writing peer tutoring service and a number of both general and discipline-specific writing courses. A central objective for the second funding period of the Quality Pact for Teaching (2017–2020) will be to use these resources to implement a higher percentage of content and literacy integrated teaching modules in the existing programmes. For this purpose and to overcome the obstacles mentioned in Section 3, a model for implementing C&LIT at the level of tertiary education has been devised at JLU that comprises measures at three levels: 1. university-wide measures (macro-level), 2. measures at the level of degree programmes (meso-level) and 3. measures at the level of individual modules and courses (micro-level). It thus also addresses the macro-level and meso-level, which Jacobs (2015: 24) identified as lesser researched areas in the context of ICLHE. This model and the reflections on which it is based will be described in the following. It does not only apply to C&LIT, but also to the teaching of many other skills and competencies, whose acquisition would also benefit from an integrated approach.

4.1. Approaches at the macro-level

Section 2 provided three reasons for teaching subject-domain knowledge and literacy in an integrated approach. Among other factors, it emphasized the importance of situated practice and discourse community knowledge for literacy development in general and writing competence development in particular. Those who are most familiar with the practice in their field and possess discourse community knowledge with regard to the academic genres of their domain are subject-domain specialists publishing in their fields. Does this mean that subject-domain specialists, i.e., physicists, biologists, historians, etc., are better teachers of academic literacies than those who have a background in linguistics, language teaching and related fields?

In certain respects, the answer is yes, but in other respects, it is no. Starting from Beaufort's (2007) model of writing competence, subject-domain specialists can be assumed to possess more subject-matter knowledge and discourse community knowledge in their specific disciplines than language specialists can be expected to possess. They can also be assumed to possess more genre knowledge with regard to the specific genres they produce frequently (cf. also Shanahan 2004: 90). Language specialists, on the other hand, possess more writing process knowledge and rhetorical knowledge. Some of them may also be proficient in a wider repertoire of genres than subject-domain specialists and, if they have focused on writing competence development in their training and professional practice, have more experience in teaching writing. This division of competencies among the two groups seems to call for team-teaching or co-teaching approaches in which students can benefit from both sources of expertise. Such a conclusion, however, would ignore a number of aspects.

First, being an expert in a domain does not automatically imply that the expert is able to pass his or her knowledge on. As we know from expertise research (Anderson 1990, Ericsson and Smith 1991: 2 and Sternberg 1997), growing competence in a domain goes hand in hand with automatization or proceduralization of knowledge, which leads to cognitive relief but also to the fact that some knowledge an expert uses for problem-solving is no longer available to conscious awareness and thus cannot be articulated and explained to learners, which, however, is a requirement for bringing it to the learners' consciousness. With regard to writing expertise, Russel (1995: 70) states (cf. also Polanyi 1966):

A discipline uses writing as a tool for pursuing some object. Writing is not the object of its activity. Thus, writing tends to become transparent, automatic, and beneath the level of conscious activity for those who are thoroughly socialized into it. [...] As a result, experts may have difficulty explaining these operations to neophytes.

Second, developing literacy in one's students requires a conception of one's role as a teacher as a learning facilitator (Kember 1997). Many subject-domain specialists complain about the poor writing of their students but do not consider it their job to assist students in developing

the required competencies. If teams of teachers are formed in which the subject-domain specialist holds such a view, co-teaching will not bring any benefit that could not also be achieved by a separation of subject-domain courses on the one hand and writing courses on the other. A prerequisite of being able to tap subject-domain specialists' knowledge for students' writing competence development is a change in teachers' conceptions of their roles from a 'teacher-centred/content-oriented approach' to a 'student-centred/learning-oriented approach' (Kember 1997 and Kröber 2010) and, at the same time, the willingness to engage in a true interdisciplinary dialogue with language teachers in order to achieve synergy effects (for an example of how such an interdisciplinary approach has been implemented in the field of economics at the University of Cape Town, see Paxton 2011). Such a change in conception often needs to be initiated from the outside, for example, in courses on how to teach writing-intensive seminars, for which incentives need to be offered.

Third, co-teaching is expensive. This raises the question whether there are less expensive alternatives to paying two teachers for one course. Craig (2013) refers to 'co-teaching' as 'integration' and suggests three alternatives of interdisciplinary collaboration between subject-domain specialists and writing or EFL/ESL specialists:⁵ 'consultation', 'coordination' and 'adaptation'.

One form of **consultation** is the employment of writing fellows in writing-intensive subject-domain seminars (Bazerman et al. 2005: 110). Writing fellows are trained peer tutors enrolled in the same university programme as the other participants of a seminar they support. They attend the writing-intensive seminars themselves and instruct seminar participants on how to give peer feedback, they initiate discussions and are available to discuss assignments and to provide feedback on them (cf. Girgensohn and Sennewald 2012: 93). Their prior training and acquired meta-competence concerning writing allows them to make the subject-domain teacher aware of the challenges students are facing in the course and to elicit explanations from the teacher that would otherwise remain implicit. The training needed for both the teachers of writing-intensive seminars and writing fellows is a service that can be provided by teaching centres and writing centres.

Another form of consultation Craig (2013) describes can be practised among subject-domain specialists and writing specialists in teaching centres or writing centres. In this type of consultation, the language teachers and writing specialists provide advice on assignments and criteria of assessment that take into account students' stage of literacy development; the subject-domain specialists provide the language teachers and writing specialists with model texts which give insight into what counts as successful writing in the respective discipline.

Cooperation is a form of interdisciplinary collaboration in which communication courses are linked to subject-domain courses and support students in their work on the assignments (either oral presentations or written assignments) they are expected to complete for their subject-domain courses. A weaker form is **adaptation**. Craig (2013: 157) uses this term to refer to forms of collaboration in which subject-domain courses and writing or EFL/ESL courses are not directly linked to one another but in which writing instructors or EFL/ESL teachers invite their students to work on their disciplinary writing projects in the writing or EFL/ESL classroom.

Apart from the support from the four collaborative approaches mentioned so far, students may also require writing support outside the regular course hours. As far as subject-domain-specific support is concerned, this needs to be provided by subject-domain specialists. Support on the writing process, rhetorical and language-related problems can be provided by language specialists and peer tutors (extracurricular **peer tutoring**), who also need special training, which can be provided in teaching centres and writing centres.⁶

⁵ Craig (2013) focuses on EFL/ESL writing and therefore only mentions collaboration between subject-domain specialists and EFL/ESL teachers. The four forms of collaboration she suggests, however, are also applicable to L1 writing contexts.

⁶ Peer tutors must not be confused with writing coaches. Writing coaching has the purpose of gradually changing writers' individual writing behaviours by familiarizing them with new writing

In order to initiate and support collaborative learning among students who work on related topics, such as Bachelor's or Master's theses in a specific domain, initiating and supporting writing groups may be another useful measure (Girgensohn and Sennewald 2012: 95). The members of **writing groups** meet regularly to provide each other feedback on their text versions. One advantage of writing groups over peer tutoring is that the members in a writing group can provide each other more profound content-related feedback than this is possible in peer tutoring, where peer tutors and tutees may come from different disciplines. The organisation of writing groups, including the matching of students who could support each other in such groups, and informing them of how their collaborative work should be organized, e.g. in instruction leaflets, also requires central support, which can come from a writing centre.

In addition, writing centres can also foster students' writing skills at the 'study skills' level (Lea and Street 1998). It is impossible to address these language-related problems in disciplinary courses without boring those who already possess the competencies and running the risk of losing the actual domain-specific topic out of sight. Therefore, additional writing courses for academic writing in the L1 (or the language of instruction) and, where applicable, in other languages relevant for the discipline or workplace are needed (cf. also Van de Poel and van Dyk 2015). These add-on study skills courses can be differentiated following the linguistic proficiency levels students have achieved, for example, according to placement tests, when starting these courses.

To sum up: At the macro-level, teaching and writing centres can take over the following tasks, which the teaching and writing centre of JLU has pursued since 2012:

- a) with regard to training: training peer tutors and writing fellows as well as university teachers for teaching writing-intensive seminars and adopting co-teaching models
- b) with regard to counselling and coaching: establishment of peer tutoring services as extracurricular support for students, providing guidance to writing groups and providing advice on writing arrangements
- c) with regard to matching: organisation of writing groups and matching of subject-domain and writing teachers as well as subject-domain teachers and writing fellows
- d) with regard to teaching: offering study skills writing courses in the sense of learning-to-write courses

To ensure optimal use of these services in a wide range of degree programmes, a **university-wide literacy policy** is needed (cf. also Fontant-Gómez 2011). This policy should foster disciplinary literacy⁷ as a central component of what counts as good teaching at the university. If this view is supported by the majority of faculties and departments, the extent to which a specific course has fostered the set of competencies associated with disciplinary literacy can become an item in student course evaluation questionnaires. In addition, an important component of university-wide literacy development policies are **incentives** for teaching writing-intensive seminars or opting for co-teaching models. Such incentives can be that writing fellows, who support teachers in giving feedback, are provided for writing-intensive seminars, and that group sizes in writing-intensive seminars are limited with the option of creating parallel courses if the maximum number of participants is exceeded. Such parallel courses can be a means of propagating writing-intensive teaching concepts.

Since newcomers to a university are usually more interested in new forms of teaching, JLU tries to engage them in the project of C&LIT through **implacement packages** and courses at its teaching centre, which also creates 'discursive spaces' for a sustained exchange between teachers, for example, in the form of faculty-specific workshops and didactic cafés, i.e. regular informal meetings during the lunch breaks, which departmental and faculty structures do not

strategies suited for their developmental stages and cognitive resources (Bräuer and Schindler 2013: 29).

⁷ I here adopt Airey's (2011) definition, which is based on Gee's (1991) generic definition of literacy: 'Disciplinary literacy refers to the ability to appropriately participate in the communicative practices of a discipline'.

provide (Jacobs 2007a and 2007b: 877). The university-wide policy should also include involvement of the teaching centre and writing centre staff in all modifications of degree programmes for quality assurance with a view to providing guidance on how literacy development can best be fostered progressively in these programmes.

Sustained effects of interdisciplinary teaching projects can also be obtained by encouraging the development of textbooks which combine the teaching of disciplinary knowledge with that of literacy in the respective domain and whose authoring depends on real partnerships between subject-domain teachers and language teachers willing to share their expertise (cf. Paxton 2011). Publishing on the impact of interdisciplinary cooperation in teaching may be another rewarding experience for those involved and a means of propagating the teaching approach (Leibowitz et al. 2011), although, as Jacobs (2015: 30) observes, incompatible research methodology can become a constraining factor.

4.2. Approaches at the meso-level

Once the central support structures specified in Section 4.1 have been established and the willingness of teachers to engage in C&LIT has been created, degree programmes have to be adapted accordingly. A prerequisite for such an adaptation is a specification of the learning outcomes or competencies that students should have acquired after the successful completion of a programme (see Section 1). For this purpose, the 'Disciplinary Literacy Discussion Matrix' suggested by Airey (2011) may be a useful starting point. It is a heuristic tool that is intended to aid content lecturers in verbalizing the explicit and tacit disciplinary learning goals they are striving for through a process of discussion with professionals from other areas. Just as subject-domain knowledge and subject-domain competencies, which cannot be acquired in a single course or module, literacy both in students' L1 and in the foreign languages relevant for their future professional lives also need to be acquired progressively over the entire programme (cf. Van de Poel and van Dyk 2015: 167). Integrating the teaching and learning of these competencies into domain-specific courses has the advantage that they can be practiced continuously and in accordance with students' progress in their disciplinary insights. This does not only apply to writing and other competencies in the L1 but also, for example, to proficient writing in the L2 (Craig 2013: 4). Therefore, Craig pleads for an increase in opportunities for writers to write in their L2, but not by offering them more discipline-independent L2 language courses but by creating more opportunities for students to write extensively in their L2 in existing subject-matter courses following a process-oriented approach (Craig 2013: 7). This is only possible if disciplinary faculty, writing instructors and EFL/ESL specialists cooperate and L2 writing instruction does not just take place in language or composition courses but is moved to an interdisciplinary space (Matsuda 1998, 1999 and Matsuda and Jablonski 2000). Requirements that writing assignments (prompts) and criteria that texts composed at specific levels of a degree programme should fulfil need to be developed and agreed upon among the teachers and examiners in a programme.⁸

The procedure described above admittedly is an idealistic one. A realistic intermediate goal is to implement the measures described just for specific modules or sections of programmes, for example the first year of study as in the LitKom project at the University of Bielefeld (Frank and Lahm 2016; cf. also the case studies in Gustafsson 2011). A first step that was taken at JLU was to transform conventional seminars into writing-intensive seminars taught by those university teachers who had qualified for this task by completing the special programme devised for this purpose (see Section 4.3). What should not be foregone with, however, are

⁸ For such requirements, see, e.g., Bükér (2003: 51), Rienecker, Stray and Jörgensen (2003a: 66–69) as well as the results of the meta-analysis of experimental and quasi-experimental studies on writing intervention conducted by Graham and Perin (2007). For university teachers who still follow the traditional university pedagogy of apprenticeship and see writing as an art rather than as a craft, it will be difficult to specify their criteria, especially in the face of masses of students (Rienecker, Stray and Jörgensen 2003b: 107). Rienecker and Stray Jörgensen (2003b: 111) therefore recommend 'that writing in the continental tradition – if necessary or desirable at all – should not take place at least until later stages of study, when some sort of apprenticeship relation between teacher and student is a realistic possibility'.

agreements among teachers on what subject-domain courses should be combined with what language-related courses in order to overcome the subdivision of modules into subject-domain modules on the one hand and 'soft skills' modules on the other in favour of integrated modules.

A prerequisite for the integration of academic literacies development into subject-domain courses beyond the project level are sustained interdisciplinary partnerships between subject-domain teachers and language teachers (see Harran 2011 and Section 4.1 above). On the basis of her findings from a three-year integration project, Jacobs (2007b: 877) cautions that if there is not enough time invested into these partnerships

these collaborations tend to have unproductive consequences, which favour either academic literacy practitioners or lecturers [i.e. subject-domain teachers] and set up patterns of inequality. In such cases either academic literacy practitioners play a 'service' role to lecturers (as editors of assignments and assessors of surface level language proficiency) or lecturers are subjected to the missionary zeal of academic literacy practitioners who try to convince them to set writing tasks that they value (such as journal and narrative writing) and to simplify the linguistic features of their disciplines so as to make the language more accessible to students. (Jacobs 2007b: 877)

Partnerships may start small and slowly, and gradually develop via expanded joint planning and parallel teaching to more extensive collaborative approaches (cf. Dove and Honigsveld 2010). Jacobs (2007a and 2007b) sees their central function as the language teachers assisting the subject-domain teachers to see their discipline and its discourses from the outside and thereby raising tacit assumptions to their consciousness so that they can be made explicit to students:

Through reciprocal engagement with academic literacy practitioners who are 'outsiders' to their disciplinary discourses, lecturers find themselves at the margins of their own disciplines, and are able to view themselves as insiders from the outside, as it were. I am arguing that moving lecturers from a purely insider perspective, to an insider perspective from the outside, enables critical understanding of the teaching of discipline-specific academic literacies. (Jacobs 2007b: 874)

In practice, subject-domain teachers and language teachers may perceive such collaborations as difficult because of hierarchical structures. Subject-domain teachers usually hold higher-ranked positions in universities than language teachers, which may represent an obstacle to ICL as Jacobs (2015: 30) could observe in two international ICLHE colloquia in South Africa in 2011 (Gustafsson et al. 2011) and in Sweden in 2012 (Gustafsson and Jacobs 2013; cf. also Paretto 2011).

4.4. Approaches at the micro-level

At the micro-level, the learning outcomes specified for degree programmes have to be broken down into the learning outcomes to be achieved in each individual module, course, and unit. A course format that lends itself to an integrated approach of teaching subject-domain knowledge and literacy is that of the **writing-intensive seminar**. What characterizes writing-intensive seminars can best be illustrated by comparing them with conventional seminars.

In conventional seminars, a written term paper usually has to be submitted after the seminar ends and will then be assessed by the teacher. Ideally, the student gets feedback on this paper but is usually not required to improve on it if the grade is positive. When required to write their first term papers, students often feel insecure. For teachers it seems to be obvious what criteria a good term paper needs to fulfil and they believe that this must also be obvious for their students, which it is not. In order to give students the orientation they need on all questions concerning the completion of their assignments, teachers of writing-intensive seminars break down the complex task of writing a term paper into a writing arrangement, i.e. a didactically-motivated sequence of assignments related to the reception and production of texts whose overall objective goes beyond the objectives of the individual assignments and

which, in the long run, guide learners on their way to attaining more complex competencies. The individual writing assignments must all be related to the seminar topic and require students not to just document knowledge they already have but to deal with a topic based on other subject-related materials they have to read and assess critically in order to come to their own conclusions. In doing so, they ideally have to compose in genres which are relevant in their respective discourse communities and/or for their later professional lives. In this manner, not only academic writing is fostered but also professional writing (cf. Göpferich 2015a: 210–213).

An outstanding criterion of writing-intensive seminars is that students get feedback on the versions they compose and have the chance to revise them. The feedback giver need not necessarily be the teacher. Feedback can also be provided by fellow students or writing fellows. In some cases, several feedback loops are useful, e.g. oral peer feedback on a first draft followed by written writing fellow feedback on a second draft and then teacher feedback on the version submitted. Writing-intensive seminars thus follow a process-oriented approach in which not only the final product is assessed and graded but the entire writing process with all its phases – planning, verbalizing, revising – is focused on. Process-orientation can further be fostered by requiring students to submit a portfolio at the end of the seminar which is composed of a selection of texts. To illustrate the requirements students have to fulfil, they should not only be provided with style guides but also with the assessment criteria that will be applied to their texts (for an example, see Göpferich 2015b).

4. Summary and Outlook

This article has described the advantages that an integrated approach to teaching subject-domain knowledge and literacy, C&LIT, has for the acquisition of knowledge and competencies in both areas. For the implementation of such an integrated approach in programmes of higher education, a three-level model has been suggested. The prerequisites for implementing such an approach are innovative and closer forms of cooperation among teachers across disciplinary boundaries. Teaching and writing centres as central services at universities can take over the role of initiating these types of cooperation and providing guidance on the modification of programmes that must necessarily accompany the introduction of C&LIT approaches.

Since 2010, JLU has prepared the ground for such an approach by first founding the Centre for Competence Development (ZfbK) and then expanding its teaching centre and adding a writing centre in 2012. The teaching centre and writing centre collaborate closely to offer the full range of services required at the macro-level. In particular, the certificate programme 'Providing writing support in higher education' for subject-domain teachers has led to an increasing number of writing-intensive seminars in the disciplines at the micro-level. Whether a seminar is taught in a writing-intensive manner, however, is still dependent on the individual teacher. As a consequence, the impact of such seminars is limited to the specific groups of students who have had the opportunity to attend such seminars. The vision is that the development and propagation of a university-wide teaching philosophy including incentives for collaborative teaching, as outlined in Section 4.1, will lead to curriculum and syllabus adaptations conducive to a C&LIT approach at the meso-level, assist in transforming initiatives by individual teachers into programme-wide standards and thus generate a greater impact.

Integrated literacy development policies such as the ones proposed in this article require support across programmes and faculties, they 'require relationship-building among and across groups that often do not talk' and, as Wardle and Roozen (2012: 114) concede, will have to 'be implemented in small pieces over some extended period of time'. This time can fruitfully be used for research on the impact of the measures taken and their interplay to optimize the institution's literacy development policy on a regular basis wherever

shortcomings are detected. For this purpose, writing centres also need to be equipped with research resources.⁹

⁹ For the implementation of such research, see Wardle and Roozen's (2012) 'ecological model of assessment'. They call it 'ecological' because it 'understands an individual's writing abilities as developing across an expansive network that links together a broad range of literate experiences over lengthy periods of time' (Wardle and Roozen 2012: 108) and takes into account students' experiences both obtained in formal education and outside.

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