

A comparative study of academic literacy in English medium instruction programs in UAE and Finland

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Graduate students in English medium instruction (EMI) programs face challenges with academic literacy, the fundamental tool for thesis writing. Therefore, this paper investigates the promotion of academic literacy from the perspective of curricula. Aligning with Tardy's (2009) genre knowledge theory and its four genre knowledges necessary for developing academic literacy, this comparative study adopts a socio-cultural position of learning by utilising the knowledges as analytical lenses to explore and compare the documents of two masters programs in the UAE and Finland. Iterative theory and data-driven coding revealed that for both curricula, the intended learning outcomes address these four genre knowledges. However, tacit assumptions of two genre knowledges and possible culture shock concerning the transition from didactic learning to substantial independent study may be barriers for students in EMI settings. In addition, bridging the gap between English language entry requirements and learning outcomes, and fostering community learning environments may better facilitate the realisation of students' full potential.

Introduction

This paper seeks to address a gap in the research of second language learners' academic literacy when studying in the medium of English in higher education. This is in response to a systematic review carried out by Macaro, Curle, Pun, An & Dearden, (2018) which revealed a need for research "concerning the impact of English Medium Instruction (EMI) on improving students' English proficiency within a more focused and clearly conceptualised investigation" (Macaro et al., 2018 p. 69), and more recently a call for studies to emphasise the diversity of EMI programs "to illustrate that specific factors have the potential to create good preconditions for success in EMI—or not" (Pecorari, 2020 p. 28). This explorative, comparative study is designed to ascertain how the intended (planned) curriculum of two education masters degree programs in EMI settings at a university in Finland and a university in the United Arab Emirates, seek to cultivate academic literacy skills amongst second language (L2) learners, with particular attention to "EMI programme entry and EMI programme outcomes" (Macaro et al., 2018 p. 69).

Previous studies have emphasised the challenges that international students face with academic writing, with the majority of students entering university unprepared to carry out research, an inadequate reading skill set to extract meaningful knowledge, and lacking the ability to synthesise or paraphrase sufficiently to produce academic writing output (Bailey, 2018; Wingate 2018). A number of studies address academic literacy from different

perspectives, for example student writing practices (Cheng, 2006a, 2006b, 2008; Lillis & Turner, 2001; Tardy, 2005; Wingate, 2015, 2018; Yung & Fong, 2019), content specialists' fostering of academic literacy amongst students (Lasagbaster, 2018; McGrath, Negretti & Nicholls, 2019), benchmarking practices to assess and improve programs (Tasopoulou & Tsiotras, 2017; Tee, 2016), and the interconnectedness of academic literacy and culture and study shock experienced by international students in a Western setting (Hung & Hyun, 2010). Nevertheless, there appears to be a dearth of literature surrounding comparative studies that explore curricula with specific focus on L2 learners' academic literacy at a graduate level.

Academic literacy is the very tool required for graduates to write their final thesis and successfully qualify for access or progression within their chosen profession. This current study holds that academic writing necessitates knowledge of four genres: process, subject matter, formal, and rhetorical genre knowledges (McGrath et al., 2019; Swales, 1990; Tardy, 2009; Wingate, 2018). Graduate learners also require access to an academic community to facilitate acculturation within their discipline in order to develop the rhetorical genre knowledge they require to reflect its ideologies and epistemologies (Kenny, 2014a; 2014b; 2016; McGrath et al., 2019; Swales, 1990; Tardy, 2009; Wenger, 1998; 2013). By comparing two graduate education programs in EMI settings, important insights may be gained into understanding the differences in how academic literacy of L2 graduate learners in EMI settings is conducted. Using an initial cycle of theory driven content analysis followed by data driven exploration, this empirical study seeks to determine whether the four genre knowledges are evident in the curricula, to what extent, if any, there is an assumption that students already possess the necessary skills for graduate level academic tasks, and finally, what approach is taken to foster learner acculturation to an academic community.

Literature review

English medium instruction

The mobility of students and academics around the world has become a global phenomenon and has led to the growth of EMI university programs in non-anglophone countries. Motivations for studying through EMI are broad and include the belief that it will improve English language skills, it could lead to increased study and career opportunities abroad, and for a variety of political reasons (Dearden, 2014). More recent studies reviewed by Macaro et al. (2018) noted institutional incentives as the high revenue generated by international students, and the increase in university rankings that come as a result of English speaking-faculty writing papers for academic journals.

Adopting EMI has highlighted various language complexities amongst second language learners (Mouhanna, 2016) since these settings use English as a means to teach, rather than the acquisition of language being the target (Coleman, Hultgren, Li, Tsui & Shaw, 2018). Trenkic and Warmington (2019) counselled that this may have an impact on student success rates since, although English proficiency may be sufficient for completion of their studies, it may not be adequate for students to achieve their full academic

potential. This becomes evident when, upon investigation, students' language capabilities are lacking in certain skills. This could be due to the nature of the language tests and scores required for entry. A minimum English language requirement for the majority of masters programs is an overall score of 6/6.5 in the International English Language Testing System (IELTS). Candidates obtain a band rating from the range of 1-9 for each of four skills, these four separate ratings then convert to the overall score. Therefore, a student who receives the minimum overall score of 6/6.5, may not have attained the same band in each skill. The reality therefore is that reading, and comprehension skills, processing and textual practices are challenging for many students (Lea & Street, 1998; Wingate, 2015). This situation continues to raise concerns amongst researchers. A recent study by Pecorari (2020) proposed that EMI pedagogy continues to miss opportunities to integrate content and language; the very concept that is "integral to the learning experience in HE" (Pecorari, 2020, p. 33).

Academic literacy

The development of academic literacy in order to communicate competently in academic writing tasks is complex. It "encompasses reading, evaluating information, as well as presenting, debating and creating knowledge through both speaking and writing" (Wingate, 2018, p. 350). Therefore, in order to attain these academic communication abilities, certain processing skills which derive from the ability to research and synthesise reading content are required (Bazerman, 1988; Coffin & Donohue, 2012; Lillis & Turner, 2001; McGrath et al., 2019; Swales, 1990). The struggles that novice academics face with reading include the volume of reading, text length, unknown lexicogrammar and terminology, and the reading skill set this requires (Lea & Street, 1998; Wingate, 2015). Khalifa and Weir's model of reading (2009) rationalised that both metacognitive and cognitive processing are required on the part of the reader to enable comprehensive reading. These metacognitive processes are necessary for the cognitive practices that subsequently occur when the writer's task is to incorporate paraphrased content into the textual conventions required for discipline specific texts.

Parallel to acquiring this skill set, emerging academic literacy also requires enculturation into a disciplinary academic community in order to attain knowledge of epistemologies (McGrath et al., 2019; Swales, 1990; Tardy, 2009; Wenger, 1998, 2013; Wingate, 2018). Immersion within this community exposes 'novices' to the discourses of their field, the "initiation into the shared conventions of discourse communities that govern how members speak and write" (Prior, 1998, p. 12).

Genre knowledge

This present study aligns with the understanding that the development of academic literacy requires the acquisition of four genre knowledges as presented in the comprehensive framework of Tardy (2009). This genre knowledge framework offers a systematic approach for the current study's exploration of how curricula seek to cultivate academic literacy skills amongst second language learners. According to Tardy (2009), expertise can be gained through the acquisition of four interrelating knowledges that need

to become increasingly integrated as novice communicators develop the effective communication skills needed within their disciplinary field.

- i. *Process knowledge* develops the understanding needed to produce a piece of writing in a specific academic field. This includes the ability to carry out research, a full range of reading skills and the aptitude to compile the different parts of the required writing piece.
- ii. *Subject matter knowledge* is the disciplinary knowledge itself.
- iii. *Formal knowledge* pertains to the recognition and production of typical patterns and conventions of the oral or written structure, focusing on rhetorical moves and specific lexicogrammar.
- iv. *Rhetorical knowledge* reflects the ideologies and epistemologies of the community of practice (Hyland, 2004) by using discoursal features specific to the community. This knowledge is possibly the hardest for novice writers; the complexity of the conventions used can feel increasingly unobtainable for a novice, whilst the expert thrives.

Implications for the curriculum

The trajectory that many higher education institutions follow is the dichotomisation of content and language, offering content classes through EMI and separate, non-credit *English for academic purposes* (EAP) classes. Additionally, language centres provide assistance for students' written papers (Lasagabaster, 2018). Students often have a misunderstanding of what is offered in an EAP class viewing them as sessions for remedial language at worst versus linguistically supportive at best. Students view any elective sessions as an extra burden as they are already overloaded with assignments, cannot clearly see an immediate return and are not fully aware of the benefits of attending an EAP class (Yung & Fong, 2019). A well-designed EAP class focuses on the founding work of Swales (1990), incorporating the processes of his framework for developing academic English courses which provide support, guidance and scaffolding for novices on the development of academic literacy (Swales, 1990; McGrath & Kaufhold, 2016; Mezek, McGrath, Negretti & Berggren, 2021).

Irrespective of how professional an EAP course is, Wingate (2018) counselled on the limitations of a curriculum that separates such courses from content knowledge. Since the final output of academic writing within an explicit context requires students to research, read, identify and evaluate discipline specific content, making specialists in the field the natural educators for this vital scaffolding of exclusive knowledge. Yet, subject lecturers are often reluctant to provide this support, incorrectly interpreting writing challenges as students' 'language problems' or, as explored by McGrath et al., (2019), because content specialists may require heightened awareness of their tacit knowledge in order to better support the advancement of students' academic literacy. The potential benefits of content and English language specialists working collaboratively to provide an embedded approach to developing source-based writing skills have been validated (Lasagabaster, 2018; Wette, 2019).

Central to a novice writer's community of practice is the educational institution, curriculum, its educators and the student society whose role and aim should be to "raise students' consciousness of the choices they can make and the consequences of those choices in particular contexts" (Hyland, 2004, p. 148), since cultivating academic literacy inextricably links the learning of specialist content with the affiliation to a discourse community.

Context of the study

The United Arab Emirates and Finland, the two countries central to this study, were chosen for their similarities in their histories of economic hardship and the need to develop in a global market which resulted in educational reforms that created knowledge-based economies (Kukkonen, 2016). Although Finnish remains its official language, EMI programs in University of Turku reflect its international, multicultural community which views English as the language of academia and international research. The United Arab Emirates University is one of three federal government institutions in the UAE, established to offer higher education to its nationals and more recently, to international students. EMI was introduced in 2003, following a nationwide policy to adopt trends in international education to assist in developing and modernising the country's education system and enabling citizens to contribute effectively to a modern globalised economy.

The University of Turku's masters programs typically attract an international cohort of predominantly full-time students from sub-Saharan West Africa, East Asia, and Eastern and Southern Europe. Heterogeneous in both language and cultures of learning, students hold varying expectations, attitudes, beliefs and values towards teaching and learning, and how the development of language intertwines into the wider aspects of the course (Cortazzi & Jin, 1996c). Contrastingly, the cultures of learning are generally consistent for the cohort of UAE University, with typically a homogenous group of Arabic speakers with few international students. These two situations highlight the diversity of global EMI programs and heightens the need for teachers and students to better identify gaps surrounding assumptions about academic skills.

Method

In alignment with a socio-cultural approach, the study employed theory and data driven qualitative document analysis of curricula from the two masters degree programs at UAE University and University of Turku. The volume of information was reduced into more 'manageable and comprehensible proportions' (Cohen, Manion & Morrison, 2018), using the work of Bernauer, Lichtman, Jacobs & Robinson, (2013) to adopt a critical thinking framework based on the perspectives of Bloom, Adler and Polyani (Bernauer, 2013, p. 2-4). Initial qualitative analysis of the curricula was carried out using a general inductive approach (Thomas, 2006) using the 'Three Cs': codes, categories and concepts (Lichtman, 2013) to make sense of the data in terms of the research question. *NVivo* software was used for assisting the process of qualitative data analysis, a practice which Creswell (2013) believed does not differ from manual analysis.

Initially, the course descriptions were categorised and labelled in order to identify which curriculum it belonged to, folders were used to differentiate between 'required' or 'elective' courses. A thorough read of each text assisted in gleaning the overall meaning and identifying key components of each document to help clarify which parts of the text held relevant information. The first cycle of analysis was theory driven and utilised Tardy's (2009) four genre knowledges as initial nodes: process, subject matter, rhetorical and formal knowledge, in order to reduce the large quantity of data in the documents to a more manageable size. This 'summary' of data was produced to ascertain the extent to which curricula addresses the acquisition of the academic literacy skill set needed for students to be able to manage communicative tasks, assessments and ultimately write their theses.

Four 'parent nodes' (process, subject matter, rhetorical and formal knowledge), were created in *NVivo* and used to index words, phrases, student tasks and activities from the curricula that contained information appertaining to the four knowledge genres required for academic literacy. This first layer of coding (Cohen et al., 2018) involved searching the documents for words and phrases which contained information connected to a specific category, e.g., *'Internet search for a model'* was categorised under the 'parent node' of process knowledge. As the coding progressed, modifications and adjustments were made, adding sub-categories in response to the data since a deeper understanding was often needed. For example, the sub-categories (child-nodes) research skills, critical thinking skills and reading skills were added to process knowledge, therefore *'Internet search for a model'* was finally identified as a research skill and finally classified under the 'child node' 'research skills', in the 'parent node' of process knowledge.

By highlighting and annotating certain parts of the text the researchers were able to organise, identify certain patterns and isolate repetitive themes, so determining the direction of analysis. Cohen et al. (2018, p. 672) coined this approach as iterative; moving back and forth through different steps of the coding process. This procedure was data driven and revealed new headings and classifications and led to 'light bulb' moments, helping to form new categories to enable comparison of the two programs. Emergent themes included those of assumed knowledges, didactic approaches to teaching versus independent work and the building of a learning community. Deep levels of analyses were performed to provide a detailed and nuanced account of the data. This analysis helped to visualise and compare data, identify themes and trends, similar attributes and ascertain those areas of academic literacy that are being adequately addressed and those that may require attention.

Findings

Theory and data driven content analysis revealed divergent results between the two curricula. Both curricula share some similarities in the following aspects: admission criteria, structure, assessment mechanisms (with one or two additional differences in each curriculum). There are also noteworthy differences in the following areas: content organisation, quality assurance, research areas, aims and extra-curricular options (Appendix 1).

Evidence of the four genre knowledges

Initial theory driven analysis scrutinised learning outcomes (LOs) to explore how curricula address the four genre knowledges. UAE University's program learning outcomes (PLOs) are mapped to the UAE's qualification framework (QF Emirates). Content analysis of their course and assessment documents established that PLOs evidence the four genre knowledges. Key words identified in courses that all students are required to take, revealed that intended outcomes incorporate all four genre knowledges. A more balanced distribution of these genre knowledges are evidenced in Turku University's program, as presented in Appendix 2.

Subject matter knowledge: From didactic teaching to independent self-study

Appendix 2 illustrates the richness of Turku University's program in terms of content, covering a range of issues concerning international education. The amount of contact hours for active participation in lectures, workshops/seminars, student-led presentations versus the expected number of hours that students should dedicate to independent study is crystalline in its study guide. Although transparent, the number of hours dedicated to autonomous learning may come as a culture shock to some students (Hung & Hyun, 2010). The move from didactic teaching that many cultures experience in undergraduate studies, compared to independent self-study at masters level is immense with many courses requiring up to 100 hours of independent study versus 10-14 of teacher led instruction.

In comparison, UAE University's program comprises three tracks dedicated to the students' choice of study. The program is United Arab Emirates centric with a focus on international standards for the continuous improvement of the UAE's evolving education system. The program adopts a more didactic approach, graduates attend classes and have a number of tasks to fulfil which make it evident, though not explicit, that students are expected to study independently and are awarded participation grades for certain tasks.

Assumptions of students' formal and process genre knowledges

An overall emergent theme was that of assumed formal knowledge in both spoken and written discourse. Formal knowledge relates to the construction of a text, the patterns that characterise specific oral and written texts to form the overall structure of the discourse. It also includes the specific lexis and grammar needed for the content and discipline. The study used the EMI program entry requirement, the International English Language Testing System (IELTS) as a reference to compare EMI program outcomes (IELTS, n.d.).

Spoken discourse

In broad contrast to the IELTS spoken component and entry requirement (IELTS, n.d.), both masters programs require students to actively participate in discussions, facilitate debates, and prepare and deliver individual and group presentations. Upon analysis, both curricula appear to assume that students already possess a suite of skills that equips them

to carry out these tasks. Neither curricula address the proficiencies required for spoken discourse assignments; no indication is given that students are ‘taught’ the skills required for formal knowledge or the overlapping rhetorical knowledge (discussed later) required for optimum presentation delivery nor the cultural conventions of discussions and debates. Throughout both programs, students are expected to plan and deliver quality presentations.

Written discourse

The IELTS academic writing tasks are very different from those for the masters programs. University of Turku dedicates two courses to academic writing skills and scientific writing, which acknowledge masters level writing tasks. This academic writing course is taught by EAP specialists and implicitly embodies the four genre knowledges; process, rhetorical, formal and subject matter knowledge, as coined by Tardy (2009). The course addresses the development of academic grammar and punctuation, using ‘metatext’ to create flow, cultural conventions, coherence, accuracy paraphrasing and referencing, reducing ambiguity and bias, reporting findings, expressing certainty and limitations, guidelines for using APA style citation, the processes and evaluation for masters theses, audience, types, constraints, conventions and structure. Whilst this course is also offered to other disciplines, reference is made to small groups of students using materials according to their field of study.

The scientific writing course at University of Turku is aimed at mastering academic texts in general. However, some opacity remains with regard to the assumption of prerequisite academic skills for specific genres of writing required for the course, such as reports, position papers, portfolios, critical reviews, summaries and learning diaries.

In comparison, UAE University’s curriculum offers student support for formal knowledge writing skills for thesis production delivered by content specialists. All writing courses focus on the development of writing skills for the final thesis. Three concurrent seminars are dedicated to the introduction, problem statement, research questions, literature review, methods, and data analysis of the final thesis. There are no courses dedicated to the other required genres such as journals, evaluation papers, case studies, article reviews, e-portfolios and proposals. These different genres of writing require formal knowledge as well as the overlapping rhetorical, process and content knowledges. The thesis development seminars include individual coaching from the course instructor and thesis advisor, rather than formative classes, offering regular guidance and constructive criticism on a student’s writing progress. This mentoring indicates that some formal knowledge feedback may be addressed by the content specialist, though there is no official course component delivered by an EAP professional with regard to the lexicogrammar, rhetorical moves, patterns, structure conventions needed to write these papers, or the rhetorical knowledge required for the different text types.

Reading skills

University of Turku’s curriculum addresses the reading skills that are paramount for developing process knowledge. The *Academic Reading Skills* course, targets students in the first year of their program. Students form small groups for 10 hours of workshops

focused on improving reading skills, interpreting and analysing academic texts. An exemption from this course is possible, based on their previous mode of study; students whose earlier studies have been completed in an EMI setting either in Finland or abroad may be excused from the course.

In contrast, the program in UAE University does not have a course specifically dedicated to reading academic texts. However, a course entitled *Introduction to Educational Research* initiates the fundamental skills needed for research. The course is a prerequisite to the three thesis proposal development seminars, it introduces the main concepts in educational research, presents the skills needed for analysis and interpretation of research data, familiarises students with the processes involved in conceptualising and conducting educational research, whilst apprising them of the various measurement tools available in educational research. The overlap of subject matter with the process knowledge and skills needed to enable comprehension of educational research is evidenced here.

A gap between English language entry levels versus learning outcomes

In terms of teaching and assessment, the two universities have very different approaches. Greater autonomy is afforded to Finnish academics when marking assignments; specific rubrics that identify specific criteria for spoken and written assignments were not available to the researcher. UAE University's program is streamlined and standardised with transparent marking and assessment rubrics.

IELTS (n.d.) indicates that those candidates awarded 6 and 6.5 fall under the category of 'English study needed' and even those who obtain a band 7 are "probably acceptable if they are taking a linguistically demanding academic course". Exploration of UAE University's marking rubrics revealed that in order to gain top marks, students should have a far better command of grammar than the IELTS score he or she entered the program with. University of Turku's courses are clearly labelled with CEFR levels of B2/C1 which is equivalent to band 6/6.5, indicating the need for assessment grading at this level.

Rhetorical knowledge: Building a community of practice

The University of Turku's curriculum addresses rhetorical knowledge in a series of seminars focused on the genre of the final thesis. The importance of analysis of scholarly writing in developing rhetorical knowledge awareness is conducted by critiquing and comparing exemplar and poorly written scholarly writing.

The University of Turku's scientific writing course also adopts an analytical approach to familiarise and practise scientific discourse, raising rhetorical awareness with a variety of styles and types, and introducing the feature of audience and author positionality. The course offers a holistic approach for the novice writer, incorporating writing process, structure and paraphrasing alongside rhetorical features, thereby embodying the overlap that is so important, according to Tardy (2009).

In addition, both curricula acknowledge individual writing strengths and weaknesses in an English language support course at University of Turku and thesis course at UAE University. Both provide individual guidance and support for the written thesis under the tutelage of an EAP specialist (University of Turku) or an assigned content specialist (UAE University). An assumption is made that problematic areas could be addressed within any of the four genres. Additionally, both curricula indicate online and peer support in these courses.

Although other genres of writing do not appear to be addressed, many subject-matter heavy courses assess students' comprehension of the disciplinary literature with the following writing tasks: position paper, report, journal, case study and evaluation paper.

Fostering a community of practice

Extra-curricular documentation pertaining to the study facilities available to post graduate students were explored to determine the ways in which curricula facilitate opportunities for discipline acculturation within the education academic community. Both university campuses have learning centres which offer support for student academic skills. Appendix 3 compares the services available for graduates in the student centres.

Discussion

This study was carried out in response to a gap in the literature for EMI settings in higher education which focus on improving English proficiency, the challenges that students face, and acknowledging the diversity of EMI programs around the world. Adopting a socio-cultural theory of learning and utilising Tardy's (2009) genre knowledge framework, theory and data driven content analysis of two masters programs in EMI settings revealed some interesting data. Whilst program learning outcomes encompass all the four genre knowledges, an assumed knowledge of formal and process knowledge skills is evidenced in relation to EMI program entry language skills and EMI program outcomes. More attention to cultures of learning (Cortazzi & Jin, 1996) could alleviate the potential culture shock of independent study expected of graduates who may be familiar with a more didactic approach (Hung & Hyun, 2010). Although an established higher education institution addresses academic literacy fully with regard to the four genres of knowledge as coined by Tardy (2009), there are still lessons to be learnt with regard to fostering a community of practice environment from a younger university situated in a country whose education system continues to develop.

Concerning content and language teaching, the two universities also opt for different approaches; University of Turku favours a dichotomised approach, whereas UAE University's content specialists provide language input, together with elective sessions and workshops in various student centres. Considerations of the strengths and weaknesses of EMI curricula, with particular focus on how programs can bridge the gap between English language skills upon entry and those required for learning outcomes, could contribute to increased student success. Building learning communities which are known to foster shared learning (Wenger, 2013; Kenny, 2014a; 2016) could potentially assist students with academic literacy. Subsequent studies could analyse students' writing with a focus on

content specialist and/or EAP specialist feedback, and investigate its impact on students' subsequent self-study and its ultimate effect on academic literacy.

Alignment of EMI English language entry requirements and program learning outcomes is clearly needed. If students' writing entry level is IELTS band 6 or 6.5 then the expectation for students to produce assignments written in an unfamiliar genre and at a higher standard, without formal language instruction, cannot be substantiated. This assumption of formal knowledge is evidenced in the marking rubrics of UAE University. Assignments require visible, unambiguous rubrics that are aligned with entry level standards.

The University of Turku's academic reading course addresses the required process knowledge needed for academic literacy. Therefore, the exemption option for this course could be problematic since prior study in an EMI setting may not necessarily result in proficient process knowledge, as evidenced by the differences in these two programs. Assumptions concerning students' formal and process genre knowledge seems inextricably linked to the expectation of independent study. Should studying in an EMI context render the student responsible for any improvement of English language skills needed and development of academic literacy? The debate of whether or not EMI should align its language learning outcomes with other integrated content and language pedagogies (Pecorari, 2020) seems pertinent since assumption of genre knowledges cannot be upheld when considering the diverse cultures of learning (see Cortazzi & Jin, 1996c; Hung & Hyun, 2010) that EMI settings attract.

Acquiring rhetorical knowledge is relatively complex since it requires the writer to fully understand text genre, be audience aware and have cognisant author positionality in order to assert 'voice'. Therefore, the provision of multiple learning centres with UAE University's masters and PhD students as peer tutors affords a physical shared learning platform. Coupled with their prolific program of workshops and seminars this environment may foster a 'sociocultural relationship between person, domain and field' (Kenny, 2016 p. 61) and create learning opportunities for novice academics amongst their peers and masters (Wenger 1998, 2013).

The differences in approaches to language course delivery provide learning opportunities. University of Turku adopts a dichotomised approach to content and language (Lasagabaster, 2018), whereas UAE University's language centres are available to provide further assistance following input from language sessions delivered by content specialists. To that effect, these experts may require heightened awareness of their tacit knowledge in the form of professional development from EAP specialists (McGrath et al., 2019). Collaboration between content and EAP specialist could produce enhanced curriculum-embeddedness, resulting in a more integrated approach to teaching academic literacy (Wette, 2019). University of Turku's transparency with regard to the number of hours students are expected to commit to self-study is polar to UAE University's didactic approach. Whilst this level of self-study may be challenging, this transparency is paramount for graduate preparedness before embarking on the program (Lea & Street, 1998) and in order to raise students' awareness of the challenges and options they have (Hyland, 2004), so ensuring students reach their full potential. Adoption of an initial

semi-didactic approach with a gradual move along the continuum towards independent study could be a more student-friendly curricular strategy.

Limitations

An obvious limitation of this study was the comparison of only two, non-randomly chosen programs. However, the naturalness of choosing one's familiar environments could be deemed as a strength as it incorporates the institutions' unique characters (Cohen et al, 2018). In line with ethical code and debates surrounding reliability of qualitative research (Cohen et al, 2018), every effort was made to present the materials and method transparently and record emerging patterns as accurately and comprehensively as possible to assist others in replicability. Although the adoption of inter-rater reliability may have been advantageous, throughout the study the following question was asked, which Kleven (1995) argued is the equivalent to the 'inter-rater version of reliability':

Would another researcher working within the same theoretical framework, have made the same observations and interpretations (Kleven, 1995, as cited in Cohen et al., 2018 p. 271).

Implications

This study highlights important insights into the assumption that we afford our graduate students regarding academic literacy. Whilst documents cannot evidence classroom practice, educators need to be working towards the same goals. Therefore, subsequent research is planned with course educators and students to determine realisation of curriculum.

Masters program designers have a responsibility to judiciously and critically assess the intended curriculum to ensure that process, formal, rhetorical and subject matter knowledge are evident and widely distributed throughout courses in order to guarantee the cultivation of academic literacy skills amongst second language learners. A greater understanding amongst instructors that far more needs to be taught in the classroom than the formal curriculum explicitly acknowledges, can be achieved once assumptions concerning novice graduate academic literacy skills are dispelled and increased attention to learning cultures is adopted to acknowledge gaps that will inevitably exist. Collaboration, discussion and conscious decisions concerning delivery of language related courses may result in improved delivery and learning of process and formal knowledges. University of Turku's EAP specialist versus UAE University's content specialist approach concerning formal, process and rhetorical knowledges warrants further research to determine which elements are good preconditions for success in EMI (Pecorari, 2020). More alignment between EMI program entry and EMI program outcomes is needed. In particular, the gap between initial formal and process knowledge skills and those expected for tasks throughout the course is misaligned. In order to bridge this gap, more explicit instruction is needed so that students can meet learning outcomes and to realise their full potential.

The sizeable gap between the amount of teacher-student contact hours at undergraduate level compared to masters level (Coneyworth et al., 2020) could be a source of culture

shock, resulting in anxiety amongst graduates. Provision of an initial mid-point on this continuum may assist in transitioning to the predominant independent study expected.

The creation of a community of practice-like environment, (a physical space as well as opportunities to engage in workshops, opportunities to discuss, peer tutoring, etc.), enables graduate students to foster a sense of community within their disciplines and build socio-cultural relationships (Kenny, 2016). This setting is key to enabling discussion and the exchange of relevant ideologies and epistemologies with masters in their field (content and EAP specialists) as well as with peers who may be more advanced on their academic journey (McGrath et al., 2019; Swales, 1990; Tardy, 2009; Wenger, 1998, 2013; Wingate, 2018).

This study focused on the cultivation of prerequisite academic literacy skills amongst second language learners in two diverse EMI settings. Findings endorse the recent work of Pecorari, (2020) which “demonstrate the significant differences in practice in EMI settings around the world” (Pecorari, 2020 p. 28).

The present study did not take into account the changing circumstances caused by the Covid-19 pandemic. However, an interesting direction for future research would be to study how adaptable the analysed curricula were in these kinds of changing circumstances, and how this kind of societal change and the flexibility required could be taken into account when curricula are prepared.

Conclusion

Overall, the study contributes to the existing literature surrounding the persistent challenges of EMI programs by acknowledging the importance curriculum can play in the cultivation of academic literacy skills amongst second language learners. It highlights the need for a curriculum that assumes less about their process and formal knowledge of both written and spoken discourse. Provision is needed for the transition from a didactic approach to learning versus independent study by addressing the diverse cultures of learning that EMI settings attract. In creating a community of practice-like environment, shared learning is fostered which assists in spreading knowledge of epistemologies. Finally, it raises awareness that EMI programs around the world operate in significantly different ways. Further studies are needed to emphasise these variances in order to ascertain the necessary preconditions that ensure “success in EMI – or not” (Pecorari, 2020 p. 28) and to ascertain whether a more integrated approach to content and learning are required for success in EMI (Pecorari, 2020).

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Appendices

Appendix 1: Comparison table

*United Arab Emirates University Master of Education and
Turku University Masters in Education and Learning*

Similarities	
Assessment mechanisms	Learning outcomes
Additional modes: Learning diary; Poster presentation; Exams; Article – sole or co-authored); Participation; Discussions; e-learning assignments; web-based forums; Article analysis/reviews; Presentations; Essays; Reflective writing; Critiques; Thesis sections; Final thesis; (Additional modes: option for non-thesis)	Both Finnish National Agency for Education and Qualification Framework Emirates (QF Emirates) are aligned to the European Common Framework (ECF) and the Bologna Framework (BF) ILOs, PLOs and CLOs mapped

Differences						
Univ-ersity	Content organisation	Quality assurance	Admission criteria	Aims	Research areas	Extra curricular
UAE	Three specialisations: 1. Educational leadership; 2. Curriculum and instruction; 3. Special education	CQAIE (Center for Quality Assurance in International Education) (2005); NCATE (National Council for the Accreditation of Teacher Education (2010) CAEP (Council for the Accreditation of Educator Preparation) (Current ongoing)	IELTS Band 6 GPA of 3.0 Bachelor degree recognised by UAE	Practice orientated; Knowledge; Skills; Dispositions of graduates who want to further their professional career in education	1. Curriculum and instruction; 2. Educational leadership; 3. Special education	<i>Student Success Unit</i> Reading Centre Writing Centre Speaking Centre <i>Academic Workshops</i> Academic reading and writing skills; CV writing skills; Writing for job applications; Study opportunities
Turku	General with electives; Option for double degree (Germany)	FINNEC (Finnish Education Evaluation Centre) (2017-23)	Points system for following IELTS Band 6.5; GPA; Bachelor degree in relevant subject; Previous research title; Previous research courses; Letter of motivation	21st century skills; Life skills; Learning skills; Literacy skills	1. Learning and instruction 2. Education policy and sociology of education	Centre for Language and Communication Studies; Occasional workshops; Academic English courses offered via masters program

Appendix 2: Keywords, phrases and topics identified in LOs mapped to knowledge genre

Uni.	Formal knowledge	Process knowledge	Rhetorical knowledge	Subject matter knowledge
UAE	<ul style="list-style-type: none"> • Demonstrate; • Communicate effectively – orally and in writing; • Explain 	<ul style="list-style-type: none"> • Locate; • Evaluate; • Distinguish; • Analyse; • Draw reasonable conclusions; • Develop reasoned and creative solutions; • Quantitative and qualitative data in field 	<ul style="list-style-type: none"> • Multiple perspectives; • Diverse audiences; • Apply; • Real life contexts; • Distinguish; • Develop a position 	<ul style="list-style-type: none"> • Curriculum instruction <ul style="list-style-type: none"> - Current issues in teaching and learning; - Classroom assessment and program evaluation; - Professional portfolio; • Educational leadership <ul style="list-style-type: none"> - Personnel administration and staff development; - Professional and cultural issues; - Educational supervision; - School leadership; • Special education <ul style="list-style-type: none"> - Advanced assessment; - Teaching for mild/moderate disabilities; - Inclusive learning environments; - Advanced collaboration; • Teaching methods <ul style="list-style-type: none"> - Maths; - English; - Science
Turku	<ul style="list-style-type: none"> • Writing conventions • Language use • Stylistic features • Compose • Identify strengths and weakness in own writing • Translate research theory into practice • Practice writing • Write academic texts 	<ul style="list-style-type: none"> • Improve reading skills • Interpret • Analyse • Distinguish • Reflect • Engaging • Locate appropriate resources for additional support • Synthesise • Develop knowledge and competency in research skills and data collection • Review scientific literary • Translate research theory into practice • Data analysis • Methodology 	<ul style="list-style-type: none"> • Academic writing from other styles • Engaging • Compose • Targets research publications in their own field • Translate research theory into practice • Familiar with scientific discourse • Essays, term papers, theses, professional expert documents, reports, etc. 	<ul style="list-style-type: none"> • Advanced studies in major subject <ul style="list-style-type: none"> - Aspects of sociology; - Educational equality and justice; - Learning environments; - Philosophical enquiry; • Elective studies <ul style="list-style-type: none"> - Comparative and international education; - Education in Finnish society; - Educational leadership; - Learning difficulties; - Multicultural education; - Simulations and games; • Workplace learning

Appendix 3: Services offered in student centres for masters students

United Arab Emirates University Student Success Unit (SSU)		University of Turku Centre for Language and Communication Studies	
Department of English and Arabic language specialists (Masters and PhD students act as peer tutors for undergraduates)		Department of language specialists offering courses in 8 different languages to different programs	
Speaking Centre	Writing Centre	Tutorial Centre	One centre
One to one consultation: 60-minute sessions; Regular workshops including: pronunciation, presentation skills, debate, SIG public speaking meetings.	One to one consultation with tutors - feedback on writing process, and advice on developing writing and reading skills needed at PG level; 60-minute sessions; Wide range of workshops on academic reading and writing skills custom-made for the College of Graduate Studies. Topics: how to read research articles, writing a literature review and abstract, academic writing style, etc. Preparing documents for job applications and study opportunities, (e.g. CVs, personal statements) through consultations and workshops; Support for PG students preparing to take the IELTS exam to qualify for work and study opportunities, through consultations and provision of practice materials on <i>Blackboard</i> ; Instructional videos on professional writing; Evening consultations for PG students planned for Fall 2020; Writing competitions.	Self-study materials; Guidance from teachers and peer tutors; Masters and PhD students work as tutors; Some PhD students supporting the learning of masters students.	English language courses for the Master of Education program; English language support for thesis; Academic reading skills; Academic writing; (within these courses individual help is offered 1-2 times); 10-12 students only; Physical space where students can meet for quiet independent study or group work; 2 English tutors available for additional support; Self-study materials; Occasional workshops.

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Please cite as: Chell, G., Mikkilä-Erdmann, M., Iiskala, T. & Dillon, A. (2021). A comparative study of academic literacy in English medium instruction programs in UAE and Finland. *Issues in Educational Research*, 31(1), 56-75.

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