

## INTEGRATION OF LANGUAGE ACROSS THE CURRICULUM (LAC) AND DISCIPLINARY LITERACY (DL) AT A FACULTY OF EDUCATION: A NEEDS ANALYSIS

Candice Livingston, Cape Peninsula University of Technology.  
Hanlie Dippenaar, Cape Peninsula University of Technology.  
Johan Anker, Cape Peninsula University of Technology.  
Ellen Simon, Ghent University, Belgium.  
Nomakhaya Mashiyi, Cape Peninsula University of Technology.

### ABSTRACT

*Training the Teachers of the Future: Language Policy and Literacy Development is an international collaborative project between universities in Belgium and South Africa. This project is aimed at developing a comprehensive programme for the integration of language across the curriculum (LAC) and disciplinary literacy (DL) in a Bachelor of Education degree. In this article, we explore the challenges faced by subject content lecturers in a faculty of education, in integrating a language across the curriculum and disciplinary literacy approach to teaching subject-specific content in non-language subjects. A needs analysis was conducted using a sequential exploratory mixed-method approach and thirty-nine lecturers were surveyed. Thereafter, fifteen lecturers were purposively sampled to be interviewed and observed during their lectures, to determine how LAC was implemented in the curricula. Finally, twelve students participated in focus group interviews in order to gain their insights on LAC in the curriculum. The challenges identified in this needs analysis relate to an absence of know-how in dealing with the language diversity of students, a lack of knowledge regarding LAC and DL, specifically related to academic reading skills and academic vocabulary acquisition, and the time constraints of developing appropriate materials for the curricula. We propose and explore a 'Four Levels of Support' programme for lecturers which should lead to the development of sustained language across the curriculum and disciplinary literacy integration in the curricula.*

### KEYWORDS

Multilingualism, language across the curriculum, disciplinary literacy, pre-service teachers, academic reading strategies, academic vocabulary, language support, academic literacy

### INTRODUCTION

This project entitled *Training the Teachers of the Future: Language Policy and Literacy Development* was born from an international collaboration between three universities in Belgium and two universities in the Western Cape Province of South Africa. This project aimed to develop a conceptual framework for the integration of content language and academic reading across the curriculum, for preservice teachers enrolled for a Bachelor of Education degree.

Language is recognised as a tool for conceptualising content and knowledge, as well as being used for expressing academic arguments based on subject language conventions and registers (Coetzee-Lachman, 2006; Swart, De Graaf, Onslek & Knezic, 2018:422). The subject-specific context plays a very important part in this project and as such, the use of the *language across the curriculum* (LAC) and *disciplinary literacy* (DL) approaches to this project has been determined to be the most applicable as it operates on the assumption that language learning and content learning are integrated and states that language cannot be effectively learnt without a context while learning in all subjects is dependent upon language. The concept of LAC is not new and academic literacy skills have been integrated into most HE curricula around the world. However, in our context, combining it with DL and a holistic approach to pre-service teacher education is proving difficult. The reason for this lies in the lack of content lecturers' competencies in using this language development approach within different content subjects.

The term disciplinary literacy (DL) is often used interchangeably with a *language across the curriculum* (LAC) approach. According to several studies and research conducted during the last decade, these terms are not the same, although both approaches emphasise the role of literacy and language in the teaching of all subjects (Shanahan & Shanahan, 2012: 8,12). According to Shanahan and Shanahan (2012:8–9), the goal of LAC, also called *content area literacy*, is to teach generic reading comprehension skills to help learners in reading subject-specific texts, while in DL, the emphasis is more on specialised language, knowledge and literacy abilities to create and communicate within the different disciplines (content subjects, including languages). Fang (2014: 444) says that DL helps to 'foreground, differentiate, and address the unique literacy demands and habits of mind related to specific disciplines'. Mpofo and Maphalala (2020) add that we need to encourage deeper collaboration between content and language experts in the development of disciplinary literacy programs that are both generic and unique to the subject field.

Using the language across the curriculum approach (LAC), the first step in this international project was to conduct a needs analysis of the lecturers in a faculty of education at a university in the Western Cape. This needs analysis aimed to determine the following: a) lecturers' current practices in teaching academic content language and b) how these lecturers integrate academic language strategies into their courses. The final goal of this project will be to provide support to lecturers in the disciplinary modes of language use and to assist students in acquiring conceptual literacy and discourse competencies for subject-specific use, with specific development in all domains of language use (reading, writing, listening and speaking). Finally, also to recognise that language for academic purposes should aid cognitive processes and structure discourse. Therefore, this project aims to extend language competencies, especially those of 'conceptual' literacy and 'discourse competence' across the curriculum. Ethical clearance for this project was sought from and approved by the faculty and an ethics clearance certificate (EFEC 7-8/2018) was issued.

## **RESEARCH QUESTIONS**

To conduct this needs analysis and develop a programme of support for lecturers in the faculty, the following research questions were posed:

- What are content subject lecturers' current practices regarding LAC?
- How are these lecturers integrating academic language and specifically academic reading strategies into their courses?
- What are the students' perceptions of their specific needs in the curriculum?

## **THEORETICAL UNDERPINNINGS OF LAC, DL AND READING COMPREHENSION**

Before we begin with a discussion of a developmental model for teaching according to the language across the curriculum (LAC) and the disciplinary literacy (DL) approaches, and the role of reading comprehension in such a curriculum, it is essential to state why it is important to conduct a needs analysis. In order to develop efficacious and operational teaching and learning strategies, there is a prerequisite need to develop appropriate integrated curricula (Basturkmen, 2010) but this cannot be done without a comprehensive needs analysis. According to Poedjiastutie and Oliver (2017:124) and Sönmez (2019), the idea of needs analyses (NA) is not new in education and many academics find using this approach to be invaluable in meeting the needs of academic learning. They state that a fundamental part of NA is the inclusion of student voices, with Eshtedhardi (2017:274) agreeing that evidence should be gathered from all the stakeholders involved and that NA is a starting point for any course design (Kohnke & Jarvis, 2019). An educational needs assessment can be defined as discerning the gap between what is known and what should be known (Davis, Davis & Bloch, 2010) and is seen as the process of diagnosing the needs of participants (Chemir & Kitila, 2022). Essentially, it is about what is needed, wanted and lacking in a course (Hutchinson & Waters, 1987). This is crucial to our study as this definition will guide the epistemological knowledge creation of our intended programme.

LAC and DL are both necessary for the teaching of every subject in school, across the whole curriculum. This is, however, often not recognised as such by all teachers. While no language can be effectively learnt without a context, learning in any subject is dependent upon language, since language and content are closely interrelated. Teachers use language to explain new concepts and content to learners, who use language to internalise and demonstrate the knowledge that they have acquired (Lucas, 2011). Language across the curriculum integrates language learning and content learning as an integral part of the learning process, across the curriculum, as pointed out below.

Language plays a central role in learning. No matter what the subject area, students assimilate new concepts largely through language, that is when they listen to and talk, read and write about what they are learning and relate this to what they already know. Through speaking and writing, language is linked to the thinking process and is a manifestation of the thinking that is taking place. Thus, 'by explaining and expressing personal interpretations of new learnings in

the various subject fields, students clarify and increase both their knowledge of the concepts in those fields and their understanding of the ways in which language is used in each' (Ontario Ministry of Education, 1984; quoted in Corson, 1990: 75). Fang (2014: 445–446) also emphasises that a key component of pedagogical content knowledge is 'deep understanding of the role of language and literacy in disciplinary learning'.

Neeta and Klu (2013, 255) point out that knowledge of the role of language is part of teachers' professional roles. Teachers have to use language to teach effectively and to help students to learn more effectively. While language teachers introduce and teach language skills as part of their curriculum, content subject teachers are supposed to introduce discipline-specific language (DL) and concepts in their curriculum, integrating language and content. This is not a new idea and has been in the foreground since the publication of the Bullock report (1975) from which we adapted three essential elements:

- Language crosses the curriculum.
- Every teacher is, therefore, by definition, a teacher of his/her subject's language.
- Every school should have a (whole) language development policy.

Although the Bullock Report looked mainly at mother tongue instruction, it drew attention to the role of language in context and in particular, the fact that language crosses the curriculum.

Unsworth (2001, 2006) refers to the concept of multiple literacies, which includes not only different mediums of communication but also different disciplines or subject areas. He points out that each subject has its own language and literacy practices, which have been pointed out since the late 1970s. He identifies different subject-specific genres (explanations, reports, procedures) that are relevant to the subject areas. It is essential for learners to understand how language is deployed in the genres of school subject areas and how subject-specific discourse distinctively differs in different subject areas. In this regard, he is close to the formulation of disciplinary knowledge as stated by Shanahan and Shanahan (2012:8) and Fang (2014:445) who emphasise the unique tools that experts in a specific discipline use to engage in the work of that discipline.

Vollmer (2006) points out that acquiring conceptual literacy and discourse competence for subject-specific use are new varieties of language use within the same language and is 'a preliminary and fundamental form of plurilingualism'. Subject specialists need to identify the language goals they expect from students, aligned with their subject-specific goals, which Vollmer describes as a 'cross-curricular matrix of educational goals in general and of linguistic competences in particular to which different subjects and learning experiences might add and contribute in different ways'. He points out that conceptual literacy and subject-specific discourse competence do not develop on their own (Vollmer, 2006) but need 'continuous attention, systematic treatment and goal-oriented practice, without which the language and also the content level of competence, remain simple, underdeveloped or even deteriorate over time' (Vollmer, 2006:9).

Clearly, Vollmer (2006) already indicates the shift that Fang (2014:444) mentions from teaching generic literacy strategies to teaching discipline-specific language and literacy perspectives. Fang (2014:445) argues that for a teacher to be effective in making discipline-specific text accessible to a diverse group of learners, they must have a deep understanding of the role of language and literacy in their disciplinary learning. He states that this ‘literacy pedagogical content knowledge’ consists of the knowledge of how spoken and written language must be structured for effective learning, recognition of the subject’s unique language forms and how to use distinctive learning and teaching strategies for his specific discipline. Johnson and Watson (2011: 101) argue that ‘through reading, writing and thinking in ways common to the discipline, students deepen their knowledge and understanding of disciplinary content’.

One of the aspects that have come to the fore in this needs analysis is the recognition of the importance of academic reading skills in content subjects. In a study conducted in 2013, Klopper (2013:223) claims that effective academic reading comprehension strategy instruction within the South African HE context requires an introductory reading course at the first-year level because of the lack of exposure to academic reading comprehension instruction in South African schools. An academic reading programme was introduced to pre-service teachers at a university in the Western Cape and according to Livingston, Klopper, Cox and Uys (2015:8), the reading comprehension levels of the pre-service teachers who had completed the programme improved, especially regarding the use of questioning and metacognition. It was found that students were better able to concentrate and remain focused while reading. In a later study on the same programme, Anker and Cox (2018) found that there was a degree of positive transfer of reading strategy knowledge to a content subject, that participants were aware of their own metacognition during the reading process and that the strategies that were utilised the most were fix-up strategies, namely, making connections and using text features to promote reading comprehension. This programme, however, still follows a generic reading comprehension strategy approach and is not yet combined with the inputs of subject specialists, to develop into a more specific disciplinary approach due to a lack of knowledge and training for students and staff in this regard.

It must be noted however, that there are certainly generic reading comprehension strategies that can be successfully implemented in some disciplines (Johnson & Watson, 2011:100; Goldman, Britt, Brown, Cribb, George, Greenleaf, Lee, Shanahan & Project READI, 2016:238). Shanahan and Shanahan (2014: 630) also agree that the use of a disciplinary literacy approach does not interfere with generic reading and writing skills but is just a more specialised approach to the reading and writing practices used by a field of study (discipline) to construct and disseminate meaning and information.

In order to achieve the integration of literacy across the curriculum, Briguglio and Watson (2014) suggest a model of language and academic literacy support for higher education that ranges from ‘least embedded’ to ‘most embedded’. This multi-layered model of language development provision (the MMLDP) with support structures that include faculty-based, campus-based and centrally-based services includes ‘self-access materials for students (and

staff); programs of academic language and learning (ALL) classes and other support delivered by ALL staff; a range of collaborative strategies between ALL and academic discipline staff; and totally embedded support delivered by discipline academics' (Briguglio & Watson, 2014:67).

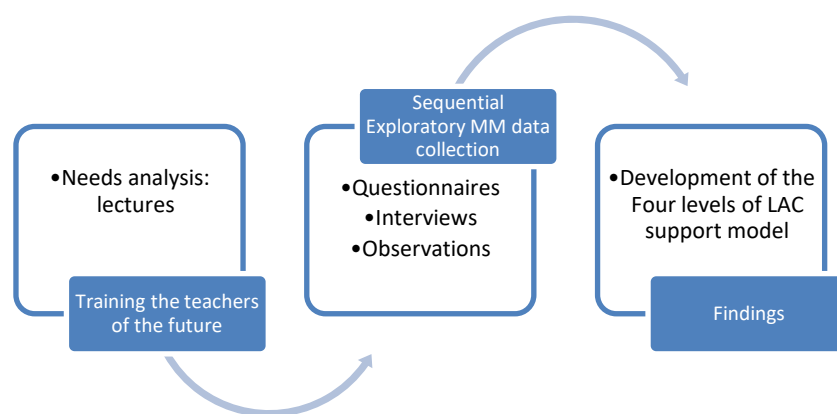
All the strategies in the MMLDP model are viewed as elements of 'embedded' support that need to be maintained, with the ideal being a model of 'fully embedded' support. They further point out that academic staff must develop intercultural communication skills to support diverse students and enhance their success in the HEI context. Their model identifies four levels of support:

1. At the lowest level, universities can provide and develop student self-access material for students, such as generic essay writing support and generic reading comprehension strategies.
2. At the second level, support is provided by academic language learning (ALL) staff in a centralised unit and who provide generic support as well as individual student support in writing assignments or addressing students' specific problem areas.
3. At the third level, there is a collaboration between the ALL staff and lecturers in the specific discipline. The ALL staff provide support through guest lectures and workshops and assist lecturers in the development of material, designing rubrics and joint research into the characteristics of literacy in their specific subject domains.
4. At the fourth level, language development is fully integrated into the discipline and subject content. They point out that this is usually where a subject lecturer also has a linguistic or language teaching background (or has been trained in the generic and specific language skills). This is regarded as the ideal. To get to this point, the collaboration of a reading specialist and subject lecturer is essential.

Briguglio and Watson (2014) suggest that all these levels are necessary to address the diverse needs of students in HEIs. Language in teaching and learning across all disciplines and subject areas, which is integrated into the curriculum, is the key to academic success in tertiary education.

## **RESEARCH METHODOLOGY**

The methodology employed in this needs analysis was sequential and exploratory in nature and employed a mixed-method approach (quantitative and qualitative) (see Figure 1). Extracts from the questionnaires, observations and interviews highlight the specific issues faced by faculty and pre-service teachers regarding the needs, wants and lacks relating to the integration of LAC in content subjects and knowledge about DL in a Bachelor of Education degree.



**Figure 1: LAC needs analysis methodological model**

Exploring the language across the curriculum approach, this sequential needs analysis aimed to get a better understanding of and determine the faculty's current practices in teaching and integrating language in the curriculum. Lecturers in the faculty of education volunteered to take part in this study. As part of the project, in the quantitative phase, thirty-nine lecturers completed a questionnaire that was developed in order to probe language across the curriculum practices. Thereafter, in the qualitative phase, fifteen lecturer participants, who had volunteered to be part of this project, were purposively selected to be observed during lectures and interviewed to determine how LAC and DL are incorporated into their lectures. The range of content subjects observed included academic literacy, language, research methodology, mathematics, history, art, biology, physics, professional studies and inclusive education. Furthermore, twelve third-year students who had been in the lectures that had been observed were also interviewed to triangulate the data gleaned from the lecturer interviews and observations.

To gain a deeper insight into students' perceptions of their specific needs, two focus group interviews were conducted with a total of twelve participants (six in each group). All participants were between 20 and 24 years of age and were enrolled in the Bachelor of Education degree. Informed consent was obtained from all participants. Each interview lasted approximately one hour. The data were collected in the framework of a Ghent University master thesis research, conducted within the VLIR-UOS project. These were transcribed and analysed using NVIVO software for qualitative analysis (Dumont, 2019).

## **FINDINGS**

An analysis of the questionnaires, observations and interviews highlight specific issues pertaining to knowledge and integration of language across the curriculum in the specific context of a faculty of education and pre-service teacher education in a Bachelor of Education degree. The following was found with regards to Research Question 1: What are content subject lecturers' current practices regarding LAC and Research Question 2: How are these lecturers integrating academic language and specifically academic reading strategies in their courses?

## **Multilingual context**

This faculty of education has a diverse student body, with the main languages of English, isiXhosa and Afrikaans being spoken. The language of instruction at the faculty is both English and Afrikaans, with code-switching between English and Afrikaans apparent during the observation of some lectures. This becomes problematic because 80% of the lecturer participants in this study indicated that while they are aware of the language background of their students, they are not aware of the students' language needs or how to support them, while 86% of lecturer participants indicated that the focus on the content of their subject happens to the exclusion of LAC and disciplinary literacy and the language needs of their individual students. The lecturers did not have LAC/DL training (except for a staff development session or two) and are only vaguely aware of such an approach and the consequences for their didactics and methodology. There is also no specific policy for language development in every subject.

If we, as a faculty of education, aim to promote multilingualism and wish to support the multilingual needs and practices of our pre-service teachers, it is imperative that lecturers be skilled and trained in meeting the language needs of the student body, across the curriculum.

## **The importance of LAC and disciplinary literacy acknowledged**

Of the lecturer participants interviewed, 73% indicated that they are positively inclined to the integration of LAC and DL in their content areas, stating that it can make a difference in student learning and 100% of the participants acknowledge that it is of vital importance to conduct research in LAC and disciplinary literacy, to improve the current situation at universities. It is interesting to note that of the lecturer participants interviewed, 67% stated that they had never been made aware of the importance of LAC and disciplinary Literacy in their education or the specific content subject that they teach. Prior knowledge of LAC and disciplinary literacy is thus indicated as a problem in the implementation of such in the curriculum.

Although lecturer participants generally acknowledge that they do not have any academic prior knowledge of LAC and disciplinary literacy in their education and training, 80% acknowledged that they have been made aware of LAC and DL (i.e., they know what it is or have heard about it) but indicate that they don't know how to incorporate it into their content subjects, with only 26% indicating that they actively try to implement LAC in their curriculum. Lecturer participants acknowledge that they are able to use LAC strategies in their disciplines as experts themselves but seldom teach or model LAC strategies directly to or for the undergraduate students. What 86% of the lecturer participants did acknowledge though was that scaffolding of LAC is a viable teaching strategy and 93% said that they integrate oral exercises in their assessments and lessons as a way of incorporating LAC in their lessons.

The reasons given for the non-integration of LAC and DL in the curriculum, specifically by the participants who were interviewed, are a lack of knowledge of the pedagogical principles of LAC and DL, the belief that language issues are or should be taught by language or academic literacy lecturers and time constraints of the curriculum. According to other researchers like Wilder and Herro (2015:539), it is a common trend for content area teachers to be very hesitant



about giving literacy instruction in their classrooms. What is interesting is that the lecturer participants in this needs analysis indicated that they do not teach or model content-specific language or academic reading strategies explicitly, because they tend to focus on the knowledge or content base of the subject discipline that they teach. However, all lecturer participants agree that the undergraduate reading and writing skills evidenced by students in their course are below standard. Data collected during the observation phase confirms what was indicated in the interview phase, with only 40% of lecturers having developed some LAC materials which could be used by the students in their lectures.

### **Integration of academic reading in LAC**

All of the lecturer participants indicated that the importance of integrating critical academic reading comprehension should be stressed and they are interested in and positive about the concept of explicitly teaching and modelling critical academic reading comprehension strategies as part of LAC and DL in their content subjects. However, the majority of lecturer participants (70%) indicated that they require more information and training in disciplinary academic reading as it is not part of the direct teaching methodology currently employed in content subject teaching. The observations of lectures confirmed this notion with data showing that only 40% of lecturers offer any reading or writing support in their lectures.

A minority of lecturer participants indicated that they use academic reading comprehension strategies (as is suggested in the LAC approach) in their subjects and stated that ‘questioning’ was the most commonly used strategy but that they also used visualisation, the use of text features, making associations and connections and activating prior knowledge occasionally. These participants also indicated that ‘understanding vocabulary’ is critical to LAC initiatives; this area is problematic and will be discussed in the section below.

Interestingly, there is definitely a perceived gap between student expectations and lecturer expectations about academic reading integration in the curriculum. Students who were interviewed after class observations made statements like:

*‘We received an article from X, um, he said nothing, he just gave it to us and said prepare this for our next lesson, and everyone came back and we were like ‘what is this? Because the language was at such a high level’*

*‘I had, like a real big reality check, yeah even at this level’*

*‘I think she expects more of us than we actually know, or than we actually can give her’*

This indicated that they did not understand what they were reading or what was expected from them.

It is interesting to note that the lecturer participants indicated that they do not teach academic reading strategies or content-specific language explicitly, but rather that they teach it informally, relying on students to ‘know’ what to do because they, as lecturers, have to focus on the knowledge or content base of the discipline they teach. Nevertheless, they all agree that

the reading and writing skills of students are below standard and a concerted effort is required to improve the current situation.

### **Integration of academic vocabulary in LAC and DL**

Lecturer participants indicated that reading and understanding academic vocabulary is of importance and should be taught explicitly. Still, there seems to be a specific problem with making academic vocabulary comprehensible as 60% of lecturer participants indicate that this is a problem in their classes and observations of the lectures indicate that only 46% of the lecturers observed the integrating of academic vocabulary in their lectures. Reasons given for this are a fear of spoon-feeding students, the availability of academic glossaries in textbooks and time constraints of the curriculum. The use of academic and subject-specific vocabulary is very important because the students who were interviewed indicated that:

*'Some of the vocabulary was way above my head'*

*'We struggle with the words and vocabulary in English (in maths).'*

The students indicated that they would appreciate glossary lists in their home language which is supported by Jonker (2016). The students make statements like:

*'It's easier in the beginning to have a glossary',*

*'It is time consuming ..... to translate it'*

*'A glossary would be very nice'*

*'I also think a glossary would also help when you work with an article'.*

This frustration is echoed by the lecturers and one of the lecturers interviewed stated:

*I am aware of the fact that my students are studying my subject in a language that is not their home language (English) and it frustrates me that they struggle with (research) vocabulary. I have been thinking about creating a multilingual glossary of research terms, both in isiXhosa and Afrikaans, for a while now, but I just don't know how to do it or where to find the time.*

There is also a misconception by lecturers that the reliance on oral tasks in content subjects can address language issues but what this needs analysis has identified is that there is a need for the development of academic reading and academic vocabulary support structures in the curriculum that are not only generic but also subject or discipline-specific. This is an interesting point, as students should be able to work collaboratively with the lecturer to create these multilingual glossaries as suggested by Manashe, Kabaso, Ralarala and Ivala (2020:173).

### **LIMITATIONS OF THE STUDY**

This was an exploratory study, aimed at trying to determine the needs of lecturers based on their current practices. The data collected provides very limited views of a narrow population but has been processed in order to best support the development of a larger language across the curriculum (LAC and DL) initiative. The data analysed testify to what was observed and does

not provide insight into other reflective practices of the lecturer participants. It is evident that lecturers have had a paradigm shift and are positive about the implementation of an LAC and DL approach and acknowledge the development of awareness and training in LAC and DL practices. Further research into the writing practices of students and lecturers is still to be conducted.

## **CONCLUSIONS**

This needs analysis focused on two research questions which were aimed at determining the current LAC and DL practices of content lecturers who teach a Bachelor of Education degree and how they were integrating this approach in their subject curricula. It was found that although the majority of subject content lecturers are aware of the need for a LAC and DL approach to teaching their subjects, the actual incorporation of an LAC/DL approach is lacking. Numerous reasons were cited for this. The greatest challenges identified and faced by the lecturers are a lack of understanding of the diverse language needs of the student body; a deficiency in prior knowledge of LAC and DL; not being able to model LAC and DL strategies, specifically with regards to academic reading and academic vocabulary acquisition and the perceived time constraints of the curriculum, which makes the development of LAC and DL material difficult.

The final problem that was investigated was what exactly the students perceived their language needs to be. It is clear from the findings that student expectations do not match those of the lecturers regarding a LAC/DL approach to the curriculum. It must be stated that although many challenges have been identified, the overall stance of the lecturers who took part in this needs analysis is positive, supportive and reaffirming of the LAC/DL approach. It can therefore be stated that the multilingual context of this faculty of education requires an integrated approach to incorporating language across the curriculum and disciplinary learning, to address the diverse academic language needs of all students. The following section will make recommendations regarding how this project can progress in order to address these challenges and deficiencies.

## **RECOMMENDATIONS**

The educational needs analysis that was conducted tried to determine the gap between what is known and what should be known (Davis et al., 2010) and highlighted specific deficiencies in the areas of lecturer academic reading and academic vocabulary pedagogical competencies. This process of diagnosing the needs of participants (Ordan, 1997) will lead to the development of what we have dubbed the 'four levels of support' model, based on the 'embedded' elements of support as espoused by the MMLDP model (Briguglio & Watson, 2014) and we will make limited recommendations based on current practices in this Faculty as identified in this needs analysis.

Per the findings of the study, we suggest the following: the first level of support, which we will call 'Level 1 support' will allow students to access material on their own, such as access to an academic reading programme, emphasising the practice of reading comprehension strategies and academic vocabulary glossaries. The first step in the process is to scaffold a generic

academic reading programme across the four years of the Bachelor of Education degree and to develop multilingual academic vocabulary glossaries in the content subjects. These will be made available to students for the independent practise of LAC skills. Further research is still to be conducted on the needs of lecturers with regards to the writing competencies of the student body.

At the second level, 'Level 2 support' will be offered. This is generic support offered by academic language learning (ALL) staff appointed to the faculty, who will provide generic support as well as individual student support in academic reading and writing assignments or addressing specific problem areas of students, such as the development of academic vocabularies.

Lecturer participants have stated that they are aware of the multilingual context and language diversity in the faculty but do not know how to cater to the language needs of the students in their courses. This acknowledgement leads us to the development of 'Level 3 support' tier, where collaboration between the academic language learning staff and lecturers in the specific discipline comes to the fore. The academic language learning staff will provide support through guest lectures and assist lecturers in the development of language learning materials, designing rubrics and checklists and joint staff research about the specific literacy strategies needed and fitting for their specific discipline (disciplinary literacy). Staff development and training opportunities are essential as all of the lecturer participants have agreed that training should receive immediate and ongoing attention through professional development sessions. Level 3 support will also stress the importance of language across the curriculum (LAC) and disciplinary literacy (DL) as part of the pedagogical methodology in all content subjects. Furthermore, it is recommended that support be provided to lecturers in the disciplinary modes of language use and to aid students in acquiring conceptual literacy and discourse competence for subject-specific use as suggested by Swart et al. (2018: 422). There should be specific development in all domains of language use (reading, writing, listening and speaking) and recognition that language for academic purposes should aid cognitive processes and structure discourse. This support will also close the gap identified, that the student expectations were very different from the lecturers' expectations of what is required in reading, writing and accessing academic vocabulary in content subjects.

The fourth and final level, 'Level 4 support' is ongoing faculty and institutional support of lecturers, which will lead to the development of a multilingual language across the curriculum programme being fully integrated into the discipline and subject content areas. The final level will lead to the homogenisation of a language development policy across the curriculum in the faculty and the connection between language, learning and comprehension will be explicit and implicit in the curriculum. The policy will be structural, strategic and permanent, and will be integrated across the four years of the Bachelor of Education degree. Examples of this should be the development of an integrated scaffolded generic reading comprehension strategy programme, staff development in supporting disciplinary literacy in their specific subject groups, with the help of literacy specialists using the so-called collaborative approach (Wilder & Herro, 2015: 541, 547). Finally, the development of multilingual glossaries in all content

subjects across the four years of the Bachelor of Education degree should be supported by the faculty in accordance with suggestions by Jonker (2016). Nomlomo and Katiya (2018:77) stress that glossaries do not guarantee epistemological access to knowledge, especially if students' reading and writing biliteracy skills are not developed (Nomlomo & Katiya, 2018:77), which is why an integrated support approach is so important.

The use of this 'levelled support' and scaffolded model should also be extended to other aspects of LAC such as writing strategy use, to ensure effective integration of LAC in the Faculty of Education.

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## BIOGRAPHICAL NOTES

**Candice Livingston** is an Associate Professor and the Research co-ordinator at the Faculty of Education at the Cape Peninsula University of Technology, where she is involved with numerous literacy projects (both nationally and internationally). Her research interests include teaching with technology, language across the curriculum, the study of fairy tales and storytelling. Email address: [livingstone@cput.ac.za](mailto:livingstone@cput.ac.za)

**Hanlie Dippenaar** is an Associate Professor and the Assistant Dean at the Faculty of Education at the Cape Peninsula University of Technology. Her research interests combine Community Engagement, Service-learning and Language teaching. Her other research interests are in tutor programmes in the Faculty of Education, work readiness of English teachers, literacy development and language across the curriculum. Email address: [dippenaarh@cput.ac.za](mailto:dippenaarh@cput.ac.za)

**Johan Anker** retired from the Cape Peninsula University of Technology in 2017 but held the position of Adjunct Professor until the end of 2018. He has also been an extraordinary professor at Stellenbosch University since 2018. His research foci include Afrikaans literature, literature and trauma, Young Adult Literature and reading comprehension and he has been part of the Language Committee for Afrikaans in the South African Academy for Science and Arts. Email address: [ankerj@cput.ac.za](mailto:ankerj@cput.ac.za)

**Ellen Simon** is Assistant Professor in the Department of Translation, Interpreting and Communication at Ghent University, Belgium where she teaches courses on the didactics of teaching Dutch as a second language, and is involved in the teacher training programme. Her research interests include second language acquisition, multilingualism, reading strategies and phonology. Email address: [Ellen.Simon@UGent.be](mailto:Ellen.Simon@UGent.be)

**Nomakhaya Mashiyi** was the HOD at Fundani-CHED (ECP) and the Faculty of Education Language Coordinator at the Cape Peninsula University of Technology until 2020 but is now a senior lecturer at the Teaching Learning Centre at the University of Fort Hare. She has extensive teaching experience in Initial Teacher Education (ITE) and teaching and learning in higher education. Her current research interests are in language education, education policy, decolonisation and teaching and learning in higher education. Email address: [nmashiyi@ufh.ac.za](mailto:nmashiyi@ufh.ac.za)