INVESTIGATIVE MINDS CREATE INVESTIGATIVE STUDENTS: ENGLISH LANGUAGE TEACHER EDUCATION FOR THE 21ST CENTURY

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ABSTRACT

The present paper concerns itself with the recent policy changes in higher education across South-East Asia that advocate a shift toward competency-based learning. The change impacts also on English Language Teacher Education (ELTE) programs that seek to prepare pre-service teachers for a career that, increasingly, requires from teachers to be imaginative, innovative and intellectually engaged leaders. However, research shows that the new policies present numerous challenges to lecturers in language teacher education programs in South-East Asia: old habits persist and role models are missing. The present paper addresses the need for examples of quality practices in language teacher education and shares with readers the researcher's own experiences in addressing the new challenges in the Australian context. The principle that informed the researcher's own teaching model drew on the understanding that the new career descriptors of school teachers emerged from the world that is becoming increasingly aware that schools belong to community, and that community is not a closed enclave but a conglomerate of "conversations", past and present, in which we participate as professionals. Hence, the key aim of the approach described in this paper was to design strategies that would enable pre-service people to expand their concepts of their professional community and expose them to ideas that they identify to be interesting, informative and inspiring their interest in future professional development.

Keywords: *English Language Teacher Education, competency-based learning, 21st Century eduaction*

1. Introduction

The recent shift in higher education toward competency-based learning reflects a globa dency for the push toward higher order thinking skills that revolve around the ability to solve problems and that require critical and creative thinking, team and community building skills, and similar. Competency-based learning marks a policy transition away from the industrial and agricultural era toward modes of production that thrive on mobility, innovative thinking, research and development; this is a new development and the skills involved are frequently described as 21st Century Learning Skills (Kell and Vogl, 2012). The focus on competency-based learning is echoed in the various Qualifications Fram works and the new standards of higher education developed across South-East Asia. Together, these documents send a message to higher edu cation providers that it is no longer the acquisition of content that marks an educated person, but his or her ability to “connect the dots”, i.e. to identify information and resources, human or other, that can result in innovative questions, solutions or ideas. We are now in the world that wants ideas, not workers that produce more of the same.

How relevant is this change to second (for eign) language (L2-teachers) teachers? Do donesia, Cambodia, Vietnam or Laos need innovative teachers and what would this mean for teachers and teacher educators? In this brief paper we explore the meaning of innovation in L2-pedagogy and research, discuss the nec sary conceptual shifts that need to take place for the field of L2-pedagogy to see innovation as a

method, not a threat, and illustrate examples of an innovative research methodology that take the field away from its idiosyncrasy and seclusion, and link it with modern thinking and discoveries. It is disheartening to observe amazing scholars on the internet sharing their latest discoveries on issues that teach us about ourselves, the brain, the social and evolutionary motivations that organise social actions, etc., while the field of L2-pedagogy remains closed to all these new influences and continues to view L2-learning as a process confined to a paradigm where text is treated as words organised by grammar and learning as a process of acquisition of vocabulary and grammatical structures. Students, constructed as acquirers of those linguistic systems, are deprived of the opportunity to exercise personal agency and are turned into sterile
ing machines, with linguists extracting language acquisition algorithms from the data that ignores perspectives from neighbouring fields. Deaf and blind, the field continues to resist change. As argued by Lian and Pertiwi (2017) following the critique by Thomas (2007) of education research in general, serious alternative perspectives are ignored, “Dismissed is perhaps too positive a word” (Thomas, 2007 p. 30), resulting in work that is “scholarly and uninspired, ambitious and timid, scrupulous and dim-sighted” (Thomas, 2007, p. viii).

While educators have occasionally bounced up against these currents of thought and considered them cursorily, they appear to have dis
missed their potential (Thomas, 2007, p. 30).

2. Paradigms and tensions in L2-pedagogy research

We have always known that L2-learners had to read, speak, write in a respective L2 and understand a spoken language. An L2-teacher might concede that, as the literature reports, the field of L2-teaching may not quite yet know how to provide students with the best feedback (e.g. Ellis, 2009), yet the field seems quite confident about the best ways to teach. The general para
digm is that to learn a language L2-learners are to perform tasks and need to be supported with feedback that the literature defines as a “balanced” mix of implicit and explicit instruction, with teachers paying attention to students’ “built-in syllabus” and providing “extensive L2 input” (Ellis, 2005, p. 216-217). Alternatively, though along similar lines, as described in Compernolle and Williams (2016), teachers act as experts, who intentionally lead students to answers that they perceive to be relevant to the problems that they study and define in linguistic terms. There is little attention paid to the fact that what students perceive to be a problem is ignored: the researcher privileges his or her point of view on the constraints that regulate L2-learning over and above the actual constraints that regulate students' pe
ception. The theory of L2-acquisition is thus built by ignoring, not by investigating, students' p
ception and the factors that interact with it. This implies that it is built by ignoring, or even suppressing, evidence from fields that might contradict its premises.

While potentially everyone may feel that they understand what Ellis (2005) or the researchers working within the sociocultural approach mean by their belief in the "Zone of Proximal Develop
ment", i+1 formula, or even a “built-in syllabus”, the argument of this paper is that these metaphors do not tell teachers much about the students themselves. They are expressions derived from very narrow research paradigms that look for evidence to support their own linguistic theories; they are not expressions that follow from
pirical evidence. This becomes a problem when research training courses identify L2-learning pedagogy with linguistics and follow the linguistic paradigms uncritically thus contributing to the stifling of progress in the field and ensuring that “dissent is increasingly rare” and that all studies rest “squarely in the middle lane of orthodoxy” (Thomas, 2007, p. viii). And yet, Thomas (2007, pp. 68-69) reminds,

Most advance in thought and practice comes not from paying due regard to what is established, from conforming to correct procedure. It comes from the dismissal of that existing thought – from rupture rather than conformity.

Lian (2014) offers a thorough critique of the Task-Based-Teaching model and the sociocultur-

al approach to L2-learning, where she illustrates how the field, by remaining stuck in the early 19th century models of pedagogic thinking, discounts students as socially motivated individuals, reduces learning to the management of linguistic structures, and confuses social engagement with tasks, action interested in impact with ta formance, and the stakes that individuals pursue in the social sphere – that impact on and interact with perception – with content. However, the stronghold of the linguistic paradigm on L2-pedagogy is so strong that an alternative is difficult to conceive. When confronted by this dilemma, in the context of ELTE programs in Indonesia, Lian and Pertiwi (2017) wonder about the sible consequences of what could go wrong if lecturers allowed pre-service teachers to explore and investigate modern discoveries on issues of their interest relating to students' learning, rather than directing those to prescribed textbooks with decontextualised proposals of research methods lacking imagination and up-to-date evidence:

[..] what could go wrong? When faced with challenges, undergraduate students would e plore the internet (including many cutting-edge seminars on YouTube) for new insights on differ ent ways of looking at problems. They will en gage their higher order thinking skills in order to make sense of this information, solve problems that this task creates, engage in teams to help each other, develop independent ideas, begin to think creatively, communicate solutions, learn to respect the opinions of others, show initiative, learn to identify relevant resources, plan for solutions and build their lifelong learning skills. This could be a change from ordinary classes where students are fed information, a strategy that only ensures that innovation is minimised, if only because of lack of time. It may be that addressing the international curriculum standards is not as difficult as it seems if academic staff enable students to examine problems, rather than looking for textbook-based solutions that encourage intellectual compliance rather than innovative thinking.

With the above quote, Lian and Pertwi (2017) send a simple but powerful message to L2-pedagogues: We need to change to allow for change. In other words, old practices will result in old outcomes. A profound change requires a thorough reconceptualisation of values, concepts and expected results. Investigative students require courageous lecturers who allow them to look for "dots" to connect and who learn with their students. This is counterintuitive in educational systems which claim to care but also terrify the students. These are the systems where students are prevented from developing innovative and informed points of view, while at the same time being told that they are told to prepare for the increasingly changing world.

3. Students' portfolios

This section illustrates examples of projects developed by pre-service teachers studying at Charles Darwin University in Australia to become L2-teachers. The unit in which they were enrolled used the model described by Lian and Pertiwi (2017). In a nutshell, the pre-service teachers were given the option to engage in r search and report on its outcomes on their existing portfolio websites. They were encouraged to explore any articles or YouTube videos that they would find interesting and that they believed would relate, however remotely, to their future job as an L2-teacher. The unit was taught ext nally only, students met the lecturer online only and all collaboration happened online.

The professional portfolios of the pre-service teachers involved in this project are public, a decision made by the students themselves. This allows the readers of this article to explore this work, the quality of students' summaries and the relevance of these summaries to their own professional development. The links to the websites are provided in the Appendix section. To satisfy readers' curiosity, it needs to be mentioned that the pre-service teachers enjoyed this type of work. However, it was a new approach to them and, in the beginning, they kept asking the re searcher a few times to confirm if they really could watch and read what they would like to see and report on.

One of these students, preparing to teach Greek and English in Australia, focused on the

concept of deafness and hearing as a key to liv ing a full life. Some of the lectures the student reported to have watched included Language Deprivation Syndrome by Gulati (2014). A read er now needs to reflect for a moment. How many ELTE lecturers examine the concept of deafness? How many lecturers have seen this lecture? How many would put this lecture on the "reading list" of their ELTE students? The student found the lecture fascinating. She was taken up by Gulati's statement that "Hearing is not required for living, but language is required for living". She r lated this statement to her own future work with school children where she will meet students with a varied range of hearing capacities.

In the course of the lecture on Language Deprivation Syndrome the pre-service teacher was given an opportunity to explore the concept of first language in ways that regular L2-pedagogy textbooks would not permit. The lecture made the subject of people suffering the loss of hearing personal. She realised that sign language is also a language and that, like a re
quires its learning from birth if a person is to be fully functional in the society. She also learned about the ways in which language shapes the mind. The anecdotal stories on this matter offered by the professor helped her build a deeper understanding of the mind-language relationship significantly better than a textbook could. She also learned about the link between the brain growth and deafness. She found out that native fluent speakers, just like native signers, have a higher grey-matter concentration in the occipital cortex. In other words, when speaking or signing, the area of the brain that is responsible for vision is activated. However, this is not the case with people who suffer language deprivation, i.e. who did not begin signing until later on in life.

The summary of the lecture on deafness is followed by other lectures that the pre-service teacher describes. Among them a lecture by Pinker (2016) on language and Universal Grammar, by Stephen Krashen (2010) and his theories of learning, and by a neuroscientist and musician Patel (2009), who explored the contrasts and similarities between music and language. Interestingly, the pre-service teacher learned that in healthy individuals with normal brains, the processing of music and language structures appears to overlap, whereas in brain-damaged patients, music perception is lost, while languag
tion is unaffected. The pre-service teacher also watched a lecture by Mayberry (2015) on How the environment shapes language in the brain. Again, the comments of the pre-service teacher reflect her amazement about the facts she was learning. The lecture by Mayberry showed how children with normal hearing acquire language structures even before they can speak themselves by simply being around adults communicating with one another.

The second student used a different approach in her investigation. Rather than simply read around, she kept delving increasingly deeper into issues of language and factors that impact on the perception of linguistic structures. First, she began her investigation with an article
amining the evidence challenging the principles that underpin the Universal Grammar theory by Chomsky (Ibbotson and Tomasello, 2016). The arguments presented in the article claimed that "children's natural ability to intuit what others think, combined with powerful learning mecha nisms in the developing brain, diminishes the need for a universal grammar". The student then followed the theme of the Universal Grammar further and explored it through a paper on educational neuroscience by Petitto and Dunbar (2009). The paper summarised a number of findings from educational neuroscience relevant to teachers working in the area of literacy and L2-learning, and also to school curriculum desig
ers. The findings reported in the article provide evidence for bilingual education claiming that "early bilingual exposure yields a phonetic pro cessing 'bilingual advantage'". The findings also indicate that delayed education of subjects that are considered too complex to be taught to little children (like science) appears to have no basis in reality as postponing subjects like science to a later age may result in challenges rather than in ease of learning.

The student then delved deeper into the con

cepts of neuroscience, perception and language-learning, and turned to a lecture by Anil Seth on how the brain creates new information. This ex citing lecture demonstrates that the human brain does not perceive new information but makes it up on the basis of predictions that it makes about what is possible. In another reading, this time on Ability to keep a beat linked to language skills by Lewis (2013), the pre-service teacher learned about the link between rhythm and speech. This made her wonder about the benefits of engaging the rhythm in songs, dance and even calligraphy to boosting L2-learning. According to the pre-service teacher, the article demonstrated that "our ability to process prosody is a function of brain development, which means it's something that can also be developed in our learners to help them actually hear another language and not just filter out the sounds". The article also pointed to a link between the processing of emotional signals and communication. In this regard, the pre-service teacher made also a connection to the work of Immordino-Yang and Damasio (2007), which demonstrates that emotions, which play out in the body and mind, are profoundly intertwined with thought. In other words, our deci sion-making and learning rely on more on how we feel than on some external logic.

4. Discussion

In summary, the professional portfolio web sites show that a lot was learnt by the pre-service teachers. However, while the information discovered was interesting and a lot of video le tures and readings were reported on, the impact of these on the pre-service teachers' research skills may not be immediately visible to everyone, beyond the obvious ability to search for and identify online resources that inspire students' thinking and expand their professional knowledge. In order to trigger this impact, pre-service teachers were requested to return to lesson plans that they designed in the previous semester, and to expand those plans by applying ideas and derstandings that they developed in the course of their online research. Appendix 1 includes a link to an example of this work by one of the students.

It is not certain that the student designed new learning resources using strategies that she derived from the videos and readings that she investigated, or because her lecturer invented some of the tools that she integrates into her own lessons. Nevertheless, it is possible to assume that the lectures on emotions, as the motivational force of actions and therefore of learning, may have expanded her understand ing of her lecturer's ideas and provided additional materials to assist an informed evaluation of language teaching concepts and frameworks that, as it turns out, may have little basis in pirical evidence. The materials that the student reviewed, including the studies that challenged Chomsky's (Ibbotson and Tomasello, 2016) Universal Grammar hypothesis, argued for refocusing the study of language acquisition on the individual, cultural and emotional factors (a "usage-based research", Ibbotson and Tomasello, 2016), and, thereby, on the authenticity of the conditions in relation to which speakers and students construct language as a meaning-making tool, not an abstract construct of rules whose relevance to children's and students' learning has never been demonstrated.

Once learning is approached as an emotional experience, and cognition as systems that develop in order to address the emotional respons es of people to the conditions that affect them, gradually, it becomes evident that the focus of language teaching needs to undergo change from its traditional preoccupation with teaching methods to conditions that evoke in students a need for an emotional response. Such conditions cannot be artificially constructed, as son (1990) would have liked them to be; they need to be authentic. Textbooks, online quizzes and similar contrived activities are not likely to engage the complexity of processing systems that help students evaluate their response to others critically and that result in a transformation of the students' perception of themselves as individuals and as members of the broader community. In other words, simplicity of the learning conditions cannot give rise to complex learning outcomes. However, did the student re-

searching all these views make these connections to understand the broader implications of the re search that she was examining?

It is hard to guess the exact extent of the student's thinking. For one, the resources that the student engaged in developing for her language students to use in class show that the she was no longer caught in the dilemmas of "comprehensible input" and the best ways of sequencing learn ing. In other words, the question that she asked of herself was no longer how to teach, but how to facilitate access to the target language texts without destroying those texts and, therefore, the implications that they may carry for action. As an example, the idea that text could be analysed in terms of emotions that they elicit in readers (Lian, 2017) helped the student go beyond the idea that texts are merely words organised by grammar and the belief that meaning is a function of the two systems. Emotional analysis revealed the possibility that there could be many ways for students to approach texts that, together, may result in students transforming how they construct their relationship to those texts and, therefore, to the entire world of intentions and values in which they frame their being and purpose not only as an L2-speaker, but as a person.

It is this sense of expanded awareness that the teaching unit (subject) described in this paper sought to achieve. It made space for students to follow up the threads that made them interested in the job of teaching in the first place and opened pathways for new ways of thinking and framing problems. The videos that students explored included lectures on human ment, human abilities, human mind and human relationships, i.e. a lot of this escapes attention when teacher training is narrowly defined. Yet, a profound interest in one's profession is crit cal if teachers are to succeed in their work. The key point of this section was to demonstrate that when research culture is cultivated at all levels of university activities, including undergraduate courses, everyone benefits. Pre-service teachers have no preconceived ideas about the scope of the field that they study. This makes their "excursions" outside the traditional boundaries of L2-pedagogy research both natural and far less challenging than to those who have already un dergone a specialised training and have invested emotionally and intellectually in the theories that they follow.

5. Conclusion: Where to from here?

In this brief paper, the researcher sought to make a convincing argument that limiting pre-service teachers' learning in ELTE programs to traditional frameworks and perspectives on L2-pedagogy is both harmful to the discipline and to pre-service teachers. The researcher referred readers to the literature that is critical of the creasingly narrow focus of educational research and its inability to respond to and integrate cutting-edge findings from fields such as biology, neuroscience, sociology and others. This inability hurts both the discipline and its practitioners. It isolates the discipline from those major ings and from the discussions that currently cupy researchers in high quality journals and on social media. Thus, instead of joining the global community of intellectuals, the field may fin self unable to provide leadership for 21st-century learning.

In other papers, Lian and Pertiwi (2017), Lian and Norman (2017), Lian (2017), Lian (2018), He, et el. (2015) and Yang, et al. (2017) expand on the topic of modernising L2-pedagogy r search and offer examples of how researchers can work with the concepts from neuroscience and other fields in order to positively impact on their L2-learners. These articles show that re searchers in L2-pedagogy can achieve this goal by expanding, not narrowing, their knowledge base. The belief that by knowing less one can understand more cannot be argued out on rational grounds. It is, therefore, time that educators in ELTE programs take on the challenge to abandon prescriptive and traditional approaches to teacher education and embark on a change in their own educational practices in order to inspire change in their students' learning. Change is not a matter of the application of ready-made steps for success; it is a risk worth taking. It is always a risk as change is a step away from procrastination and into the unknown (Thomas, 2007, p. 92).

Conflicts of Interest:

The author declare no conflict of interest

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