

Hiding in Plain Sight: Literacy Development Possibilities in Initial Teacher Education

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Abstract

The development of literacy competencies among second-level school students has been highlighted, by the Programme for International Student Assessment as 'vital to succeed in society'. Literacy competency development has become the remit of all teachers, in all disciplines and initial teacher education programmes have a responsibility to address this. This paper aims to explore the provisions made within one Irish Initial Teacher Education programme, for the development of teaching strategies to enable literacy competency development within the technical-subject classrooms at second level. It also explores the perspectives of its pre-service teachers on this topic. A mixed method case-study was conducted, collecting data through questionnaires, dialogic-discussion groups, focus-groups and interviews. A key finding was the challenge in defining 'literacy'. This ambiguity left pre-service teachers and teacher-educators unsure of expectations in this regard and resulted in a misalignment between the theory being taught and pre-service teacher practice. Technical-subjects are unexpectedly rich in opportunities to develop literacy competency. However, only some pre-service teachers were recognising the potential for literacy development within these subjects. Further training is required to address the challenges highlighted in this paper and to equip pre-service teachers with the appropriate tools to meet the literacy demands of today's technical-subject students.

Keywords: *Literacy Competency; initial teacher education; technical subjects; pre-service teacher.*

1. Introduction

Societal needs are evolving rapidly, and this is further compounded by the COVID-19 pandemic. It is vital to ensure that today's young people are equipped with the competencies to adapt and to deal with whatever challenges are put in their way. One such competency is literacy, which has received significant attention in Ireland over the past decade. Ireland has always prided itself on having a 'world class' education system (Printer, 2020; Conway & Murphy, 2013). However, when The Organisation for Economic Co-operation and Development (OECD) published the results from its Programme for International Student Assessment (PISA) in 2009, Ireland's scholarly standards of literacy had fallen significantly (Cosgrove & Cartwright, 2014). In response to this, the Department of Education and Skills (DES) published *Literacy and Numeracy for Learning and Life: The National Strategy to Improve Literacy and Numeracy among Children and Young People 2011-2020* (DES, 2011), with the hope of bringing about reform in this area. The reform most relevant to this research, was the Junior Cycle reform (age 12 – 15). The Framework for Junior Cycle (DES, 2015) suggests a shift in focus to 8 key skills, including literacy, across all subjects (NCCA, 2015).

This paper aims to explore the provisions made in one Irish Initial Teacher Education (ITE) programme, for the development of teaching strategies to enable literacy competency development within the technical-subject classrooms at second level. It also explores the programme's pre-service teacher's perspectives on this topic, seeking to investigate how literacy competency development can be incrementally embedded into the case-study ITE programme, at Galway-Mayo Institute of Technology (GMIT), Letterfrack. A mixed method case-study approach was chosen to capture the interpretations of its participants, which is discussed further in section 3. The following section explores literature relevant to this study.

2. Literature Analysis

The literature analysis highlighted several elements of interest to this study. Defining literacy for the purpose of this study proved challenging. This demonstrated the need to establish what literacy development meant from the perspective of the pre-service teachers (PST) and school-placement tutors (SPT). Secondly, the literature was explored to establish the provision within ITE for training PSTs to develop literacy competencies in the classroom. The literature was explored to establish how these subjects enable the development of literacy competencies.

There is no universally accepted definition for literacy (Cambridge Assessment, 2013). The term no longer just refers to the ability to read and write, but to a deeper understanding and a relevance to the world around us (O'Donoghue, 2002), with definitions varying significantly depending on the context. Both Irish stakeholder's (DES and NAERM) and

international assessment programme's (PISA and PIACC) definitions of literacy are demonstrated in Table 1. below.

Table 1. A Comparison of Literacy Definitions.

Where:	Name:	Whom:	How:	Why:
Ireland	DES	3 - 18 years old	Read; Understand; Critically appreciate	
	NAERM (ERC)	2 nd class & 6 th class	Construct meaning; Communicate through written language; Interact with existing knowledge	Participate in communities; Read to learn Enjoyment
International	PISA (OECD)	15 years old	Understand; Use; Reflect; Engage with	Achieve goals; Develop knowledge and potential; Participate in society
	PIACC (OECD)	Adult	Identify; Understand; Interpret; Create; Communicate; Compute	Continuum of learning; Achieve goals; Develop knowledge and potential; Participate in community and wider society

Source: Adapted from (DES, 2011; Shiel, Kavanagh, & Millar, 2014; OECD, 2009; OECD, 2019)

These definitions differ as they are tailored for the cohort for which they are dealing. One common thread among the definitions explored above, is the ability to “construct meaning” (Kennedy, *et al.*, 2012). Another consensus is that they relate to the everyday life of the learner. Through analysis of the literature, the author has adapted the above definitions to reflect what literacy means in the context of this study. The author has defined literacy as:

- The ability to engage with, identify, interpret, and use both existing knowledge and new learning from printed text, spoken language, broadcast and digital media to construct and communicate meaning, and develop knowledge and potential, to enable the achievement of goals and the participation in community and society.

Murphy, Conway, Murphy & Hall (2013) suggest that a high percentage of PSTs had what may be considered a ‘traditional understanding’ of literacy. They also suggested that the defining of ‘literacy’ can differ significantly, depending on the context of social practice.

It is now well established by a variety of policy makers, including the Department of Education and Skills (DES), the Teaching Council (TC) and the National Council for Curriculum and Assessment (NCCA), that ITE is a key component in improving the literacy standards of Ireland’s young people. Murphy *et al.* (2013) discussed the lack of responsibility taken by post-primary teachers, they had studied in this regard, suggesting a belief that literacy was “taken care of” in primary school. The Junior Cycle reform, whereby the

methods of assessments are changing, will enable the development of literacy competencies to have a more natural place within the curriculum. In the context of ITE, it is important to develop the ability to teach literacy (Garbe, 2017), but it is equally important to focus on the personal literacy skills of PSTs.

With the DES emphasising that “all teachers should be teachers of literacy” (DES, 2011, p. 47), there was a significant culture shift for teachers of subjects other than the core English and Irish subjects (Burke & Welsch, 2018). Traditionally literacy would not have been considered the remit of the post-primary teacher (MacMahon, 2014; Murphy, Conway, Murphy, & Hall, 2013). However, literature has shown that technical-subjects promote literacy, problem-solving, critical-thinking and higher-order learning (DES, 2011). With a significant amount of design-based content and the utilisation of problem-solving skills required within the technical-subjects, they provide many opportunities for the development of literacy competencies. Schooner *et al.* (2017) identify problem-solving and critical-thinking as key skills in design, stating that these competencies are addressed in technology and design education, as part of the subject matter and have been for centuries.

3. Methodology & Methods

This research focused on the ITE programme at the Department of Creative Education, GMIT, Ireland. Graduates of the programme, Bachelor of Science (Honours) in Education (Design Graphics and Construction) are qualified to teach post-primary level technical-subjects; Graphics & Wood Technology at Junior Cycle and Construction Studies and Design Communication Graphics at Senior Cycle. This research was grounded in a constructivist/interpretivist paradigm, which seeks to interpret meaning from the experiences and perspectives of its participants (Adom, Yeboah, & Ankrah, 2016). The chosen methodology for this research was a mixed method case-study, an approach chosen to obtain information on the development of literacy competencies from those involved in the programme, including programme staff, school-placement tutors (SPT) and pre-service teachers (PST). Ethical approval was obtained from the ethics committee at GMIT, and 94 participants gave informed consent to partake in the study. The data collection methods used in this research included questionnaires (no=84 – PSTs, SPTs & Educational staff), dialogical reflection groups (no=10 – 10 at each table including all cohorts mentioned above), focus-groups (no=2 - SPTs & management staff) and expert interviews (no=2 – literacy experts). The utilisation of multiple methods of data collecting facilitated the validation of the data collected through triangulation (Denscombe, 2010). The methodology used to analyse the gathered data was a thematic analysis using manual coding to generate themes and patterns.

4. Findings and Discussion

This section explores the findings from the primary research, in light of literature in the field; the challenges in defining 'literacy', literacy development within the case-study ITE programme and finally, the practice of developing literacy competencies within technical-subject classrooms.

4.1. Defining Literacy

There was an incremental approach to the development of both personal and pedagogical literacy competencies within the programme, which was apparent from an exploration of the programme documents, and from a notable shift in the vocabulary being used by the four different year groups, in questionnaire responses. The defining of 'literacy' ranged from what might be considered a traditional understanding of the term in 1st year, "Understanding of how to read and write", to a deeper understanding in 4th year, "Being able to use the skill of reading and writing to strive in the wider community. Being able to use the skills to develop as a human capable to strive in the 21st century", which aligns closely with many of definitions explored earlier. The word 'understand/ing' was used by 27 (of 69) participants. However, 13/20 were 1st year responses and 9/16 were 2nd year responses, indicating a belief that literacy is more than reading and writing but were unable to expand on this. Two participants from 3rd and 4th year referred to "critical-thinking" and "higher-order". Educational staff's (no=15) literacy definitions demonstrated a deeper knowledge of what we now understand to be literacy, "the capacity to effectively use and interpret text and symbols, including reading and writing", with 7 referring to "communication", 6 referring to "using/applying", 4 referring to "interpreting" and 3 indicating a connection to "society/life". However, when SPTs (no=5) were asked to define literacy in a focus-group, there was hesitation from all participants, indicating a lack of confidence in their ability to define the term.

4.2. Literacy Development within ITE

One finding that emerged from this study was a PST's awareness of the responsibility of all teachers in developing literacy competency in the classroom, regardless of the education level. Murphy *et al.* (2013) discussed the lack of responsibility taken by post-primary teachers in this regard. Interestingly, when the PSTs (no=69) in this study were asked to indicate the stage of their education that they most developed their literacy competencies, 29 responded "primary" and 27 responded "post-primary", indicating an awareness of the shared responsibility of both primary and post-primary teachers. Although the PST questionnaire responses indicated that they were confident in both their own abilities (71% agree, 23% neither agree nor disagree) and their abilities to develop literacy competencies within the classroom (55% agree, 30% neither agree nor disagree), SPTs indicated a disjunction

between students' perception of their abilities and what staff were witnessing. One SPT suggested that “the students are ticking boxes and they don't see it [literacy] as something that is an integral part of the lesson”, which indicated that many PSTs did not prioritise literacy development in their teaching.

4.3. The Practice of Development within Technical-Subject Classrooms

One objective of this study was to establish what provisions were being made in terms of teaching strategies to develop literacy competency in the classroom. The PSTs were questioned on training they had received on how to promote and develop literacy competencies within the classroom. The responses indicated that 4 (1st year participants) of the 69 PST participants were not aware of strategies being explored within different modules. An examination of the Approved Programme Schedule, indicated that provisions are being made for the development of both personal literacy competencies and literacy competencies development in the classroom. However, it was not clear whether the PSTs were making the connection between the theory being taught on the programme and the application of that theory. When asked what strategies the PSTs were using in their teaching practice, the most common response was “word wall” (30 /69), which was a response in all year groups. However, the 3rd and 4th year groups also suggested strategies that engage learners in critical-thinking through presenting (no=5), creating posters (3) and other creative strategies such as Irish language promotion, portfolio creation, reflection, flipped-classroom and student research. When comparing the PST's literacy definitions with their strategies to promote the literacy competency in the classroom, there was a misalignment between the two. This was corroborated in the SPT focus-group, with one SPT suggesting that PSTs “will only make that link [between theory and practice] once literacy is explicitly named within the lesson”, implying that PSTs were not making that vital connection between the two aspects of literacy competency development. Literature suggests that technical-subjects provide students with ample opportunities to develop literacy competencies. However, few PSTs on this case-study programme did not recognise that potential. This was echoed in the SPT focus-group, with one SPT suggesting “an inherited belief from previous generations, that these subjects have traditionally been seen as low literacy subjects.”

5. Conclusion

This research sought to establish what provisions were made for the development of teaching strategies to enable literacy competency development within the technical-subject classrooms at second level and also to explore the PSTs' perspectives on this topic. There was evidence of the development of literacy competencies and pedagogical strategies to enable the development of literacy competencies in the classrooms, within various modules on the programme. However, there was a lack of clarity around the meaning of the term ‘literacy’

and therefore, difficulties in recognising and implementing teaching strategies to assist this development. Literacy development within an ITE programme requires significant consideration and the design of 'what' and 'how' this is embedded needs to allow for both personal literacy development of the PSTs, as well as the ability to recognise and develop literacy competencies within their own classrooms. Defining the boundaries of literacy education and all its complexities when placed in the context of ITE should be emphasised as an integral part of the programme design. There is evidence of the potential, within teaching technical-subjects to engage students in literacy competency development. Further training for programme staff and PSTs would address the challenges highlighted in this paper and equip teacher-educators with the appropriate competencies to adapt and meet the literacy demands of technical-subject students.

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