Literacy for Specific Purposes (LSP): A Literacy Curriculum Framework for Learners in Vocational Education

Diola Bijlhout
University of Wales Trinity Saint David, United Kingdom, *d.bijlhout@uwtsd.ac.uk*

Gordon Ade-Ojo
University of Greenwich, United Kingdom, *g.o.ade-ojo@gre.ac.uk*

This qualitative study reports the first validation of the Literacy for Specific Purposes (LSP) theory and framework for literacy curriculum development in Further Education (FE). The paper combines the validation which is viewed as an iterative process with an empirical research that collected data through face-to-face interviews with learners. The findings confirm that the underpinning concepts of the LSP theory i.e., curricularization, cross-disciplinarity interactions and learner-centredness are interrelated and promote literacy development in struggling literacy learners. The second component, the theory validation, confirms the reliability of LSP as a viable theory in education.

Keywords: literacy, learners, vocation, evaluation, framework, validation, LSP

INTRODUCTION

Across various disciplines the concept of validation is applied, predominantly to analyse underlying tests, scales, and questionnaire properties of investigated phenomena although the various concepts of validation offered do not sufficiently provide guidance on how to conduct a validation and lack uniformity (Kane, 2000; Sireci, 2007; Hahn, 2013). In the field of education, the common practice appears to consist of critiquing pedagogical frameworks rather than validations. This study sought to bridge the gap in research practice by conducting the validation of the Literacy for Specific Purposes (LSP) framework through an iterative process. It starts with presenting research questions that will be explored against the existing literature and obtained research-based evidence. This study is conducted in the context of the UK's Further Education (FE) context and is guided by the following research question: How do struggling literacy learners and their teachers perceive the effectiveness of the LSP program?

The LSP theory provides a curriculum instruction framework which aims to facilitate literacy development in struggling literacy learners. Answering the highlighted research question will be the initial step in establishing the status of LSP as a reliable framework. Establishing the reliability of LSP requires a process of validation which has been defined in various ways by numerous scholars. For example, Sargent views model

validation as determining whether the model correctly represents a governing theory (whether the model was built right) and whether the model works in a "reasonable way" given its purpose (Hahn, 2013; 879). This validation process has been used in the field of computer science in the development of simulation models. Another explores theory validation in the context of the technical details of the model and how it relates to the relevant disciplines, knowledgeable expertise and underlying theories (Macal, 2005; North & Macal, 2007). This type of validation has been used across disciplines including, physics, engineering, and business industries. The focus of this study in one part, therefore, is to further the course of multidisciplinarity by introducing concepts and frameworks across disciplines. In specific terms, borrowing concepts and processes from other disciplines and applying them in the field of education.

The aim of this paper, therefore, is twofold. First, to report the process of the theoretical validation that LSP has been subjected to and second, to report the empirical research findings from the UK-based study that tested the effectiveness of LSP in a real FE classroom. It is anticipated that the validation process may generate scientific knowledge and evidence which may result in revising the proposed LSP framework. The ultimate outcome would be to enhance the practice of validation in educational sciences on the one hand and to confirm the status of LSP as a practical framework for literacy learning in vocational educational contexts.

Context of the Study

The view of literacy that underpins this study draws on the social perception of literacy (Street, 2003; Tett et al., 2012). According to this perception, literacy consists of multiple practices that are utilised by individuals and are relevant to their worlds to reach broad social goals. Therefore, it can be determined that literacy encompasses much more than someone's capability to read and write texts. This presents a contrasting view to the 'traditional' or cognitive perception of literacy which dictates how individuals must obtain reading and writing skills and should engage with literacy in society. This cognitive perception of literacy reflects a technicist approach to literacy acquisition and development which poses challenges particularly for young people in education for a myriad of reasons (Prinsloo & Baynham, 2008; Thériault & Bélisle, 2020). For example, the unfamiliarity with educational instruction practices, generic assessments, and learning disabilities pose challenges to their literacy acquisition and development (Green & Kostogriz, 2003).

This technicist approach is rooted in the dominant cognitive perception of literacy that is mainly concerned with the goal of educating and classifying different literate groups of young people in societies based on reading and writing skills (Goody & Watt, 1963). As such, national and international educational policies favour this approach as it secures systems that can measure the performances of schools, teachers, learners and policies. In contrast, this study associates with the social perception of literacy which recognises the multiplicity of literacy practices that are part of learners' everyday lives in modern society (Street, 2003; Tett et al., 2012). The argument that literacy teaching should incorporate the social contexts of learners is gaining some traction in education and it challenges the dominant perception of literacy. Hence, more research is needed

on how best to integrate the social perception of literacy into teaching, pedagogy and assessments. Literacy education that draws on a social perception of literacy calls for the use of complex curricula and assessment structures that capture the richness and complexity of the actual literacy practices of learners (Street, 2005).

The social perception of literacy resonates with the School of New Literacy Studies (NLS). Literacy consisting of multiple practices can be used to educate, empower and develop individuals across everyday life contexts and disciplines (Freire, 1993; Barton & Hamilton, 2000; Street, 2016). Despite the high level of applicability of this perception of literacy for educational practice and its emergence in evidence-based research studies, certain shortcomings have been identified. Firstly, an important shortcoming is the absence of practical frameworks (e.g., curriculum) following a social perception that can be applied across various educational settings (Street, 2005; Duckworth & Ade-Ojo, 2014). This lack of a practical framework predominantly affects the literacy development of struggling literacy learners (Lankshear et al., 2002; Duckworth & Ade-Ojo, 2014; Street, 2016). Secondly, the lack of heterogeneous samples used in studies following a social perception, and the inconsistent varieties in the reporting of the social impact of developed literacy programs make it difficult to identify a reliable and valid practical framework for use in literacy education. LSP is a response to this recognition and call for a practical framework rooted in the social perception of literacy in teaching and learning in order to support struggling literacy learners (Ade-Ojo 2014). The LSP framework provides the link between the social perception of literacy and literacy education which focuses on the social, academic, professional and vocational needs and practices of struggling literacy learners.

Numerous scholars have emphasised the persistent literacy challenges faced by various groups in society (Barton & Hamilton, 2000; Gee, 2008; Street, 2011; Duckworth & Ade-Ojo, 2014). One conclusion emerging from these studies is that there is a disconnection between groups of young people in and outside of current education and of young people entering employment and the literacy curriculum they are offered (Ade-Ojo 2008, 2014). This resonates particularly with non-conventional learners, such as the ones who struggle with reading and writing, and those who are not in education employment or training (NEET). We argue that utilising the LSP framework which introduces these learners to different literacy practices based on their interests in related areas of vocation and profession will allow them to better understand literacy relevancy, their identities, and to better understand power in relation to their rights. Ultimately, this will contribute to the empowerment of non-conventional learners in their current and future lives (Ade-Ojo, 2014). In this study, having discussed the current challenges with literacy education in general and specifically in the vocational FE context, the authors sought to investigate the suitability of the LSP framework through validation of the LSP concept following an empirical study to explore its claims of being an effective practical framework for use among unconventional literacy learners and across disciplines. Ultimately, the goal of such explorations will help build its legitimacy as an effective framework.

METHOD

The empirical research study was set up in the UK and involved struggling young literacy learners (16 – 24 years) enrolled on a vocational education program in FE to support literacy (Level 1) and health development. LSP was selected as the theoretical and practical framework utilised in the study. The study was approved by the Greenwich University Research Ethical Committee [UREC/18.1.5.7 – 22 November 2018] and all issues addressed in the approval including consent, data protection, voluntary participation and protection from harm were implemented. For 8 weeks, two groups of student participants (N=8) were taught either the traditional literacy curriculum or the alternative curriculum which was developed based on the LSP framework. Performances were compared between the two groups (pre) and after (post) the intervention by collecting data through face-to-face interviews with participants and analysis of the artefacts generated in the course of their study. The data from the recorded interviews was transcribed and thematic analysis (Braun & Clarke, 2022) was applied. For LSP to be considered as a legitimate instrument, initiating the validation of LSP was vital. Hence, first, the theoretical validation process of LSP was carried out guided by the research questions and the seven steps of the Hierarchy of Theory Validation (Thorkildsen, 2015) (Figure 2.). The central questions that underpin this validation are 1) To what extent will an analysis of the theoretical foundation of LSP advance its theoretical position and 2) can the change that is expected to happen in learners' literacy and wider development in practice enhance the LSP's practical framework and, therefore, advance its empirical position?

Review of the Literature

Validation frameworks: a brief review

The use of a validation framework guides the validation process and enables the evaluation of contemporary concepts. To select a suitable validation framework for the validation study, a literature review was conducted. Various scholars have discussed and debated what the scientific validation process should entail (Kuhn, 1963; Popper 1963; Haan et al., 1983; Rorty 1991; Messick 1998; North & Macal, 2007). Though the established validation frameworks such as Messick (1998) and Popper's falsifiability (1963) have been extensively referenced, issues remain, such as a perception of impracticality (in the case of Popper), the lack of feasibility due to the numerous re-interpretations, and the unsuitability of the model for addressing social concerns in the context of designs of language testing and administration (in the case of Messick) (Weideman, 2012). Further, Popper's theory has been challenged for mainly emphasizing the process of falsification rather than validation of social theory development and testing (Wallis, 2008). Essentially, the limitation to the two theories is that they are less focused on the validation dimension and, therefore, not particularly ideal for meeting the goals of this study.

Given the limitations to the two established theories highlighted above, Thorkildsen's hierarchy of theory validation (2015) becomes a viable alternative for us. Thorkildsen's (2015) theory draws on classic scholars, such as Kuhn (1960s) and Rorty (1970s). According to Thorkildsen (2015), each theory must undergo a set of critical phases that

will provide evidence to justify or repudiate it. This scientific stance and its underpinning assumptions, we argue, are better aligned in supporting the novel aspect of LSP and the validation practice of the authors. The hierarchy of theory validation framework provides clarity of process which supports and better equips novice researchers in conducting the validation of theories accurately and scientifically (Thorkildsen, 2015). A major factor influencing the preference for this theory is its high level of practical engagement. It must be noted that although developed in the field of psychology, its use is not restricted to that field alone and can have cross-disciplinary implications.
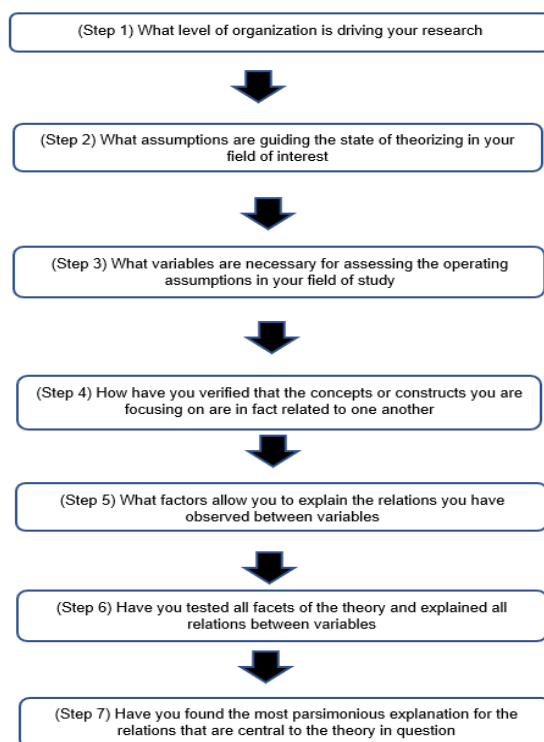

Figure 1
Hierarchy of Theory Validation, (Thorkildsen, 2015)

Thorkildsen's (2015) framework maps out 7 questions that are hierarchical steps utilised in the validation process in this study (Figure 2.). Once one step has been completed, the next step commences, and this is part of a reiterative process. The exploration of these steps guided by the research questions initiated the validation process of LSP. The steps stimulated finding answers which then were paired with the established literature and empirical findings. In the section consolidating empirical and theoretical findings, the answers to these 7 questions are discussed.

Literacy for Specific Purposes: A Theoretical and Practical Framework

Literacy for Specific Purposes (LSP) (Ade-Ojo 2014) provides a curriculum development framework as a response to the debates about the association between literacy and educational and societal problems. LSP allows for a cross-disciplinary approach in literacy education, combining linguistics, education, vocational subjects, and any other subject of interest to learners (for this study health and wellbeing). The central principle of LSP is that literacy for non-conventional learners is not designed or taught outside of the learner's real world and desires but is integrated into a subject matter of importance to the learner (Ade-Ojo, 2014). This bespoke approach reflects the distinctiveness of LSP which enables learners to be equipped with a broad sense of education and introduces them to the different worlds of social practices so that they can understand and apply literacy in all areas of experience and action (Ade-Ojo, 2014).

The practical framework is constructed around three components; curricularization, cross-disciplinary interaction and learner-centredness (Figure 1.) These elements are illustrated from the empirical study in which the LSP framework was utilised.
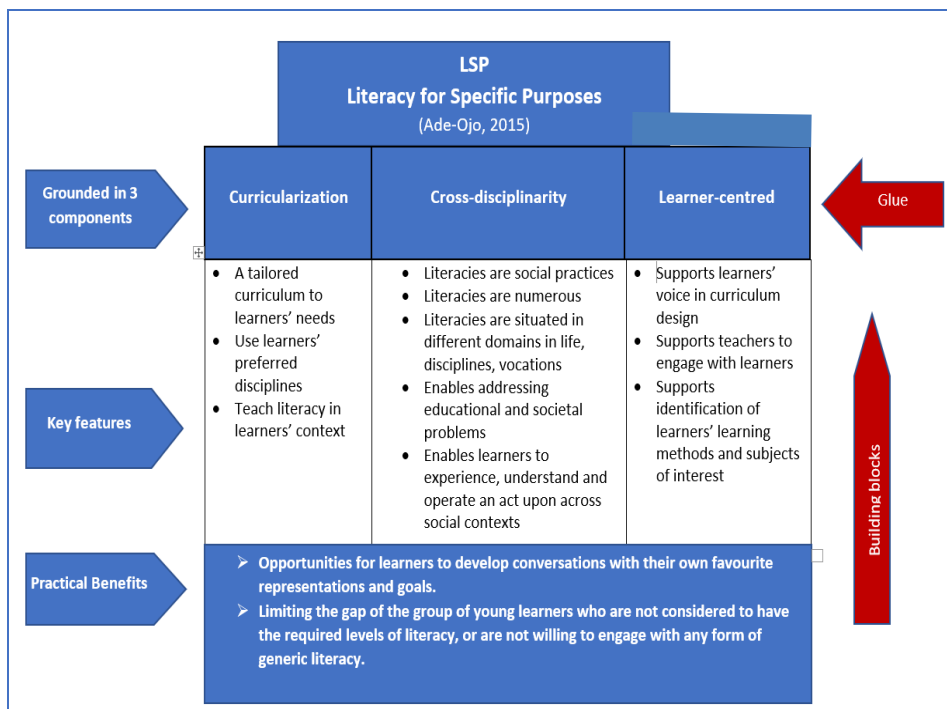

Figure 2
Diagram representation of LSP theory as a practical framework

Curricularization

The implementation of a tailored curriculum is perceived as a facilitator for literacy development across the disciplines (Ade-Ojo, 2014). Undertaking this process is termed 'curricularization'. Curricularization in this context leads to the development of a literacy curriculum that combines theoretical and practical knowledge in learners to their preferred vocational and professional disciplines. A literacy curriculum in the 21st century, as a consequence, must build on the self-perceived personal needs and goals of learners in subjects of interest in areas of vocations and professions (Belcher, 2009; Ade-Ojo, 2014). During the curriculum development, learners become partners and can take ownership of their learning and become empowered (Taylor & Robinson, 2009; Hinchman & Sheridan-Thomas, 2014), especially when the knowledge and practices learned, relate to their reality and desires. Of importance is that literacy development requires a curriculum that is designed following the need assessment of learners (Belcher, 2009), and that practices of reading, writing and speaking also capture the vocational preferences of learners to reach their specific goals for specific contexts.

Cross-disciplinary interactions

The knowledge acquisition that emerges in learners is supported through cross-disciplinary interactions. Cross-disciplinarity is where two disciplines integrate methods and insights but the disciplines remain intact (Sill, 1996). Learners' preferred areas of vocation and profession will be a determining factor in identifying the required specific knowledge that can be used as a vehicle for literacy development. As the literacy needs of learners differ across disciplines, literacy practices change and new ones may develop (Ade-Ojo, 2014). Thus, discipline-specific practices and events evolve and the discipline-specific literacy used by teachers will reflect this progress and the disciplinary interactions. The knowledge acquired by learners is applicable across relevant and desired disciplines in various settings in society. This cross-disciplinary approach offers a solution in education and brings disciplines together to support the tackling of educational and societal problems.

Learner-centeredness

Literacy learners are at the heart of LSP. Learner-centeredness and learner engagement are strengthened based on a partnership between teachers and learners during the actual curriculum development process to; identify needs, goals, learning methods and subjects of interest in vocational and professional areas (Wohlfarth et al., 2008; Ade-Ojo, 2014; Weimer, 2013). A learner-centred approach allows learners to develop and acquire specific literacy practices and language whilst being introduced to the different worlds and the attendant social practices that enhance understanding and application of literacy in all areas of experience and action (Ade-Ojo, 2014). These principles are drivers for learner engagement and support the development of various literacies and practices across learner's social contexts (Ade-Ojo, 2014).

FINDINGS

Literacy for Specific Purposes implemented in the FE classroom

For this validation study instead of selecting a vocational subject, which could lead to a high variation in one classroom, due to learners enrolled courses, the subject of health and wellbeing was used to test the LSP practical framework. The research question that guided the empirical research centred on whether the developed literacy curriculum following the LSP framework effectively promotes literacy and health development in young (16-24 years) struggling literacy learners enrolled on a vocational course in a UK-based FE college.

The alternative curriculum was delivered over eight weeks to a class of 8 learners by their regular literacy teacher. During the curriculum design, learners were consulted about; their views on learning and their ideas about relevant health topics that needed to be part of their learning/teaching. The learners' views were then included in the developed curriculum. Each week a different health topic was taught and learners in class, individually or in small groups, worked on context-based assignments (home, college, the workplace) in relation to this health topic. At the beginning, learners were asked to write down and discuss their self-identified needs and goals in areas of literacy, health and wellbeing. These were recorded in specially designed worksheets and added to their portfolio to guide their learning and to monitor their progression. The effectiveness of the curriculum in promoting learning/ practices in areas of literacy, health and wellbeing, across social contexts was determined based on students' experiences.

To be able to evaluate the effectiveness of the alternative curriculum a control group of eight learners was included in the research for comparison. Qualitative data was collected from learners in both groups at various stages, including at the start and at the end of the curriculum through face-to-face interviews. In addition, over the eight-week duration, learner outputs from assignments (portfolio, flip-overs, worksheets,.), classroom observations, and teacher feedback were gathered to be analysed (thematic analysis) alongside the interview findings to gain in-depth insight into significant issues.

Findings from the original study

The key findings collected from the interviews with learners and their literacy teacher are discussed below. However, it is important to emphasise that we are looking at these findings not as an end but as a means to an end. The ability of the LSP theory to generate verifiable findings enhances its ability to be classified as a validated theory. Looking at the findings here is essentially a foundation for conducting the validity test. Four themes were identified; curricularization supports literacies identification, learner-centredness unlocks individual development, transformed classroom environment facilitates inclusive learning, and literacy teacher and learners partnering.

Curricularization supports literacies identification

Most learners explained how the approaches used in the classroom helped them to achieve their individual reading and writing goals. Their comments show they refocused

on their achievements by recognising their strengths and areas for further development. The teacher's feedback highlighted learners used a wide variety of new keywords and expanded their vocabulary. Furthermore, learners were introduced to the use of reading practices of a wide variety of texts during the sessions which developed participants' language techniques in presenting information and different viewpoints in connection to health and wellbeing. Some learners linked literacy achievements to practices outside the classroom. One explained "I cut back on smoking. I haven't smoked as much as I used to. And just jogging a bit." (LSP learner 1703) while another explained "Keeping my body healthy and also having to prevent getting ill, having a positive lifestyle and do the things that will make me happy (narrated)." (LSP learner 1704). These findings reveal how the LSP curriculum strengthened learners to apply purposeful literacy identifications. Inviting participants to reflect on their literacy goals and subject/vocational-related goals contributes to the development of their autonomy, competence and natural growth.

Learner-centredness unlocks individual development

Some participants were cognisant of the aspect of taking responsibility during their literacy learning and shared their perspectives on why being involved in peer learning and teaching and how knowing to share knowledge with peers was empowering. This finding in a way suggests that some learners developed a level of agency (Fowler, 2008; Ecclestone et al., 2010) during their learning process. For example, some mentioned using investigations and being active as their preferred ways of learning about new subjects. This shows how learners, through their engagement with the LSP curriculum, furthered their own development and ability to strengthen their agency and identity in areas of literacy as well as health and wellbeing. One learner commented: "If you study hard on that one thing you want to learn more about and when you are in class and the teacher is teaching that stuff, you might as well teach others how and what's all this. That is probably something classmates don't know and you know more and say you might as well tell them what's all this and what's all that. (narrated)" (LSP learner 1703). This shows, that learner's learning experiences no longer revolved solely around their literacy needs but also around their literacy and health and wellbeing development and in-class social interactions with classmates.

A transformed classroom environment facilitates inclusive learning

Following the LSP framework the teacher promoted group work and knowledge sharing between learners around health and well-being themes alongside the engagement with reading and writing practices, and conversations. The teacher highlighted that learners learned to apply knowledge and understanding to their tasks while similarly building an understanding of specific health themes. The diverse group of learners and their teacher embraced the use of more contemporary materials such as schedules, symbols, textbooks, PowerPoint slides and mobile phones that seemed better aligned with their daily practices. It was observed that although the diverse group of learners remained the same, learners started to open up to one another. This manifested in their levels of engagement, conversations and interactions with one another. The less talkative learners appeared more confident and joined their peers and participated during reading, writing

and speaking assignments. As one learner commented, "You start talking to people. Trying to speak up to people." (LSP learner1700). This shows that the modification of teaching practices in the classroom impacts on 1) learners' behaviour and learning engagements and 2) supports the bringing together of all literacies, across social contexts, including combining new technology and more conventional literacies shaping learners' knowledge and skills.

Literacy teacher and learners partnering

The LSP curriculum requires literacy teachers to partner with learners, and subject specialists and to move away from a mainly individualistic approach towards supported learning. During engagements, such as creating peer learning, individual and small groups and wider classroom activities, the literacy teacher from an expert point of view emphasised the importance of ensuring the use of correct language features. An important impact witnessed on teacher practice following the partnership with a subject specialist has been encouraging the development of learner's presentation skills in the FE classroom. The teacher commented on how learners' presentation of group work on health and wellbeing-related themes has expanded their presentation skills and increased confidence in learners. These characteristics signify the importance of building partnerships between literacy teachers, learners and subject specialists. The findings revealed the teacher's gatekeeping ensures 1) literacy learning takes place and 2) the integration of learners' voices during the curriculum development and 3) the integration of subject/vocational specific elements based on learner's needs and goals.

Although learner's responses were positive about the program, areas for improvement were also discussed, for example ensuring they have sufficient time allocated for the sessions to avoid being rushed and scheduling more weeks for the LSP curriculum classes. Furthermore, the teacher acknowledged the need for a stronger usage of the portfolio by learners, and teachers need to encourage learners to keep documenting their experiences and assignments as part of their portfolio.

DISCUSSION

The authors are cognisant of the fact that the study findings of the empirical research are baseline findings and still can be viewed as relevant to contribute to the reiterative validation process to establish the scientific worth of the LSP theory and practical framework. The discussion is shaped around the identified 4 themes from the empirical data and by answering the 7 questions from Thorkildsen's hierarchy to consolidate the validation. The baseline findings based on the data collected pre- and post- intervention and between the two groups of learners corroborated the findings from the literature.

First, the process of curricularization supported the identification of various literacies used for specific purposes based on learners' needs and goals in the areas of literacy, health and well-being. Limiting a clinical learning approach especially benefits literacy learners who experience challenges in cognitive processes, such as concentration or memory that impede their literacy development and social and personal competencies. Learning instead has been described as an ongoing process of reflection and action, which is characterized by 'asking questions, seeking feedback, experimenting,

reflecting on results and discussing errors or the unexpected outcomes of actions (Carmeli et al., 2008). Literacy learning in the classroom, therefore, focused on identifying first effective ways and then achieving those ways through a curriculum to improve the learning process for all learners, especially in vocational education. This is extremely important because literacy also has been viewed as a means of access to further education and training to continue studies and vocational training (Baynham, 1995).

Second, learner-centred learning was fostered during the sessions and this reflected learners' need for strong guidance in developing their sense of agency in identifying their needs, goals and teaching material. Hereby, the positive effects of literacy education became visible when language around health and wellbeing was taught for specific purposes across vocational contexts and this motivates learners, builds confidence and self-esteem, and encourages interaction among students (Saliu & Hajrullai, 2016; Zhang & Ardasheva, 2019; Thongchalerm & Jarunthawatchai, (2020). Many literacy learners struggle with negative feelings during the learning process. A challenge, therefore, was to positively influence the process of affective learning for already struggling learners. By including learners' learning goals and interest in a topic their motivation becomes connected to their perceived values of the "real world", such as employment (Arquero et al., 2015). Learning activities, therefore, were based on the learner's pursuit of intrinsic goals to improve autonomy, competence, and relatedness that promote natural growth (Vansteenkiste et al., 2004).

Third, the classroom environment gradually transformed into a space reflecting high engagement and where a diversity of learners worked together to establish learning in the areas of literacy, health and well-being. The literature reveals that it is not uncommon for students to perceive literacy teaching as boring, dry and even academic within their vocational program (Ivanic et al., 2007; Ivanic et al., 2009). Students at times see no clear purpose or relevance, and consequently, lose interest and build up a dislike to just perform their literacy tasks (Ivanic et al., 2007; Zenkov & Harmon, 2009). On the contrary, some participant learners indicated they had fun while learning about literacy, health and wellbeing across specific contexts. Literacy learning, when connected to vocational learning and context-based learning approaches, can support positive learning behaviours. High levels of social support and high levels of goal-setting result in greater career planning activity (Roger et al., 2008). These outcomes, we suggest, improve the literacy learning experiences in vocational education which in turn influences attitudes and behaviours for future lives of learners.

Fourth, the relationship between peers and the literacy teacher reflected new dimensions of knowledge sharing across the disciplines and acknowledgement of each other's capabilities and knowledge in the areas of literacy, health and well-being. Teachers should act as knowledge experts to assist students in achieving meaningful communication in the classroom by identifying the actual resources students use to communicate across their real-life contexts (Street & Leung, 2010). The findings showed learners and their literacy teacher were able to identify their strengths, weaknesses and developments that strengthen one's identity and empowers them in the areas of literacy, health and well-being across wider contexts, such as the home, work

and the college. This supports learners' capability of identifying situated literacy practices, power relations, identities and relevant social practices (Appleby & Barton, 2008; Ivanic et al., 2009). Learners were awarded a completion certificate that highlighted their achieved learning across areas of health and wellbeing. This inclusion of vocational orientations and the existence of different worlds required learners to develop specific literacies in order to understand and operate in these different worlds, in particular in terms of their health and wellbeing.

The findings showed participants in the control group, had a different learning journey as they engaged with the traditional literacy curriculum which is dominated by a single practice and promotes the decried dominance in literacy teaching (Duckworth & Ade-Ojo, 2014). The majority of students expressed the aim to pass their exams, which was similar to the intervention group. However, the main difference was that the participants in the control group did not experience a profound development in the area of health and wellbeing in terms of literacy and practices.

Thorkildsen's hierarchy – consolidating empirical and theoretical findings

At this time having discussed the findings from the empirical study, it is of importance to discuss the key points of these findings alongside our validation framework which consists of 7 guided questions as presented below.

Step one: What level of organization is driving your research?

Our study reveals that various forms of knowledge (disciplines) in society that are constructed around specific phenomena need to be recognised (Hirst, 1973, Hirst, 1974; McCulloch, 2002). By integrating cross-disciplinary teaching practices in subject areas of literacy and vocation, a higher impact is reached. Literacy education, therefore, should be developed in practice in close relation to other social practices, such as health and wellbeing. To this end, LSP can draw on a range of frameworks around learner-centredness and multi-disciplinarity to support literacy development (Wohlfarth, 2008; Belcher, 2009; Weimer, 2013).

Step two: What assumptions are guiding the state of theorizing in your field of interest?

The findings from the literature and the empirical research supported the pre-established assumptions. The relevant assumptions guiding LSP were situated across three areas and were identified. Firstly, alternative literacy curricular programs can be developed for educational purposes which will support learners in establishing relationships between everyday literacy practices across their social contexts. Secondly, the positive impact on learner's motivation due to the purposeful teaching of literacy and language and lastly, the inclusion of vocational orientations supports learners to operate in different worlds. Thus, we theorise following these assumptions of LSP that literacy and personal development properties may be better supported across vocational contexts in particular.

Step three: What variables are necessary for assessing the operating assumptions in your field of study?

Three variables were identified following a review of the literature and as part of the empirical findings that were considered necessary for assessing the operating assumptions that underpin LSP (see step 2). Variable one is identified as 'literacy learning' that is based on assumption one, implementation of alternative literacy curricula. Variable two is identified as 'affective learning around attitude and behaviour' and is based on assumption two, utilisation of purposeful literacy teaching. Variable three is identified as 'learning behaviour around vocation' and is based on assumption three, the inclusion of vocational orientation guiding young learners to wider worlds, including employment.

Step 4: How have you verified that the concepts or constructs you are focusing on are in fact related to one another?

Evidence from the established literature and the empirical research reveals that the underlying concepts of LSP in areas of curricularization, cross-disciplinary interactions and learner-centred learning are interrelated (Baynham, 1995; Dittrich, 2005; Drake & Reid, 2018; Sripan & Sujivorakul, 2020). Correlations were identified as explained between; the learning environment and literacy learning (curricularization), teaching and disciplinary engagement (cross-disciplinarity), and between affective learning and the behaviour and attitude of learners (learner-centredness). It is recognised that despite the successes, teaching an alternative integrated disciplinary curriculum has been associated with factors causing barriers to learning and learning engagement; such as factors related to teachers' qualifications, and beliefs about and experiences of schooling and instructional practices.

Step 5: What factors allow you to explain the relations you have observed between variables?

Three factors following a review of the literature alongside the empirical findings were considered relevant in explaining the observed relations between variables (identified in step 3). The first factor, developing an empowering literacy curriculum, suggests that specific social practice-based educational programs, for example, those that draw on the concept of curricularization, allow interweaving literacy learning and empowerment (Barton, 2007; Osborn et al., 2007; Ivanic et al., 2009). The second factor, encouraging affective learning, is based on the argument that best practices of purposeful literacy teaching, promote the collaboration between teachers and students, in the selection of study materials, and the use of texts that are related to a wide range of activities to learn and practice skills (Saliu & Hajrullai, 2016; Zhang & Ardasheva, 2019). Learners overall express a positive attitude towards this approach to learning literacy specific practices in the classroom. The third factor, encouraging disciplinary engagement, is framed around the argument that teaching the formality of literacy practices connected to vocation results in learners becoming better communicators as they receive resources they can analyse, learn and can deconstruct the ways that literacy creates meaning in context (Marques, 2008).

Step 6: Have you tested all facets of the theory and explained all relations between variables?

At this stage, the outcomes following the analysis have assisted in explaining the relationships between all the variables identified in the LSP and revealed areas that have been validated in theory and empirical practice as applied as a framework. The identified relationships in the literature were further critically analysed following inferences made about LSP. Curricularization, for instance, allows literacy teaching to capture wider personal development and a variety of literacies as part of the learning process (Baynham, 1995; Harris, 2000; Kim, 2003; Kellinger, 2012; Ade-Ojo, 2014; Chopra, 2016; Street, 2017; Tett & Hamilton, 2021). Furthermore, the transferability of experiences to socio-cultural contexts such as vocation, it was inferred, supports the empowerment of learners (Chopra, 2016; Street, 2017). The power dynamics between teachers and learners require balancing to reach effective learning and teaching for specific purposes, such as vocational settings (Dudley-Evans, 2000; Davies, 2001; Belcher, 2006; Marques, 2008; Bhatia et al., 2011; Ramirez, 2015; Chopra, 2016). Another inference centred on acknowledging learners' aspirations in life in the classroom motivating learners (Belcher, 2006; Belcher, 2009; Liu et al., 2011). Learning knowledge following non-traditional approaches empowers learners to think broadly, across contexts for application beyond the classroom and shapes their identities, including vocational identities (Okshevsky, 2000; Becher & Trowler, 2001; Yoo, 2001; Pring, 2002; Neumann et al., 2002; Dittrich, 2005; Kelly et al., 2008; Hirst, 2012). All these aspects were identified in the empirical research in the group of FE learners being taught literacy following the LSP practical framework.

Step 7: Have you found the most parsimonious explanation for the relations that are central to the theory in question?

Following the breath of analysis reached we determined that the exploration of the literature, alongside the empirical research and the application of the framework provided relevant information and insights about LSP as a theory, as a framework, and its application and impact in FE teaching practice.

In conclusion, the outcomes of this reiterative validation process supported that the LSP theory has the potential to offer an effective practical framework in FE literacy education to enhance literacy engagement and knowledge building across disciplines.

CONCLUSIONS

The uniqueness of this study can be viewed from two angles. First, uniqueness manifests in terms of an affirmation of the validity of the theory. In a general sense, this is a process that has not been previously utilised in education studies. In a specific sense, this is the first time LSP is subjected to validation. The outcome lays the foundation for subsequent studies, particularly in an area where pedagogical theories are often induced by practice. Second, uniqueness manifests in relation to the primary research, which found that the application of the LSP framework facilitates wider development in struggling FE literacy learners, such as in the context of this study, in

the area of health and wellbeing. This is unique because of the context and the application of a novel theory which has not been previously utilised for such a study.

In response to the underpinning research question, the conclusions following the validation study brought a number of issues to the fore. First, it was established that clarity on the validation framework to be utilised in a validation study is crucial if the study is to be executed accurately. Further, the study showed that Thorkildsen's hierarchy of theory validation can be used across disciplines, with flexibility as part of an iterative process and in particular, can be fruitfully utilised in the field of education.

Another finding from this study indicates that although formulating steps and questions might be a necessary condition in the implementation of a validation study, it is not necessarily sufficient. What this study has shown is that clear interpretation and understanding are required if the validation process is to be concluded successfully. This requires the input of expert colleagues to help shape understanding. This is a crucial requirement for facilitating a consistent validation approach, such as when using Thorkildsen's hierarchy of theory validation. As shown in the study, it is important to have an independent colleague read and provide feedback to enable authors/researchers to make the required adjustments. Working through the seven steps helped identify the relationship between the underlying concepts of LSP and its predictive power on literacy development and the wider development of struggling FE literacy learners.

The empirical research sought to test the effectiveness of the LSP framework in practice based on its presented assumptions. One central finding is that the dominant traditional pedagogies and literacy curricula in FE learning environments can be changed but with a cost. In this context, this study confirmed that spoon-feeding approaches do not build competent and confident learners in vocational studies (Edwards & Smith, 2005), however, applying a learner-centred approach secured in the curriculum strengthens confidence, competence and wider personal development.

Further, there was evidence that the three components of LSP, namely, curricularization, cross-disciplinary interaction and learner-centredness and their interrelatedness become strengthened during teaching practice. Curricularization secures the adaptation of the practical framework in teaching practices and supports close collaborations between literacy teachers and literacy learners. Cross-disciplinary interaction encourages literacy teachers to broaden their literacy scope by including learners' subjects of interest, vocation, and social contexts in literacy education.

Despite these seeming strengths, there are gaps reported by learners and teacher which are related to the actual implementation of the framework. In spite of this, however, the flexibility, which LSP offers as a practical framework and pedagogy, is highly beneficial. The ultimate aim of traditional literacy schooling is to transform cultural expectations of nationhood and state formation and thus identities (Collins, 1995; Street, 2008; Duckworth & Ade-Ojo, 2014). This explains why the traditional pedagogy and literacy curricula, therefore, have facilitated the complex, multifaceted standardizations and measurements of literacy in schooling (Duckworth & Ade-Ojo, 2014). It is at this intersection where the alternative curriculum and learning

environment reveal their influence on the learning of learners. The LSP framework demonstrated its suitability for use within the complex standardized FE context.

Despite the successes, teaching an integrated disciplinary curriculum has been associated with factors causing barriers to learning and learning engagement. For example, factors related to teachers (e.g., subject matter knowledge, beliefs about and experiences of schooling and instructional practices), the context (e.g., administrative policies, curriculum guidelines), and communities that favour traditional discipline-based approaches in teaching (Venville et al., 2009) have been highlighted as challenges in this context. What this empirical research has shown is that strong collaborations between the literacy teacher and subject (vocational) experts can help to mitigate the factors that could impose barriers that could emerge from using an LSP-based curriculum.

As validation studies in the field of education are not yet common practice, this validation study, it is hoped, can ignite the interest of researchers in education so that they can begin to engage with this type of investigation. In our view, this will enhance evidence-based practices in the field of education in the context of novel and contemporary theories. This will not only benefit learners but also the teaching profession.

LIMITATION

Finally, we cannot ignore the need to replicate the study with a larger group of participants. In our view, the course of replication and generalisation will be furthered if a larger sample of participants is involved. The ultimate goal is that it will facilitate this continuous process of validation practices in the field of education.

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