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Research article

Improving the quality of Portuguese SMEs through competence evaluation

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Abstract. *Problem and goal.* Since we are going through a key moment in terms of technological advances and their effect on the labour field, the investigation of the on-the-job training processes gains a predominant role. Moreover, the need to research an approach that promotes a balance between the four spheres of development of learning – economic, sustainable, community and personal – is emerging. This study was conceived as a result of this urgency, aiming to respond to the following problem: to what extent does a training model, based on the VPL (Validation of Prior Learning) approach and supported by principles of the educational sciences, can contribute to individual empowerment and, consequently, to an improvement in the organizational quality of Portuguese SMEs (Small and Medium-sized Enterprises)?

Methodology. The division of the research into two parts – Study 1 and Study 2 – allowed the collection and analysis of structural data (Study 1) that served as a basis for the definition of a dynamic strategy (Study 2). Although undertaken at different times, they have thus proved to be complementary. In fact, the design of the training model was based, firstly, on the results obtained through exploratory interviews with key informants and, secondly, on the data obtained throughout the training process that involved ninety-two employees from ten Portuguese SMEs from diverse categories and sectors.

Results. The training model, which emerged from the interaction between the theoretical reflection and the practical context, comprises five components: distance learning, recognition of skills, language skills, intercultural skills and an individual action plan.

Conclusion. This study, being an important contribution to the topic of on-the-job training in Portuguese SMEs, at the same time opens the way for the continuation of the research.

Key words: lifelong learning, human resources and skills, technology in lifelong learning, foreign languages and cultural diversity, VPL approach, on-the-job training, SMEs

Problem statement. Skills needs are changing. The development of academic skills is fundamental, but insufficient. The promotion of social, communication and higher order thinking skills – problem solving, critical thinking and decision making – is becoming increasingly vital for citizenship and employability in the 21st century [4; 5; 11].

Therefore, the VPL approach – Validation of Prior Learning – stands as an important pillar of lifelong learning strategies, as it operates them through bottom-up



learning processes. It allows for a greater openness to the learner's individual perspectives, making their empowerment more evident. The concept of empowerment refers to freedom of choice and action to structure one's life, implying control over resources and decisions, and focusing on individuals' capacities to participate, negotiate, influence, and hold accountable institutions that influence their lives. Consequently, this empowerment transforms the nature of learning and challenges the learning system itself to develop strategies in different settings and for different purposes. If learning affects individuals' private and public life, it is vital that they have access to all forms and stages of learning in order to shape their own destiny. It is in this sense that VPL can be understood as a bridge of learning opportunities for all [4; 5].

As the central instrument in fulfilling the entire VPL process, the portfolio is directly related to three distinct ways of developing the VPL approach:

1. Through the construction of a portfolio, the individual can compile an inventory of his competencies, according to a predefined set of standards, with the intention of its evaluation and subsequent recognition (*summative VPL*).

2. The portfolio can serve as a starting point for deciding on the need to continue learning, in order to develop, for example, a specific competence that is useful for the individual's work experience (*formative VPL*).

3. The *reflective VPL* presupposes empowering individuals to manage their own careers, articulating their developmental needs and building their own competencies. The building of the portfolio should focus on the entire learning biography of the individual, outlining a plan of action.

The portfolio is an essential prerequisite when implementing the VPL process. It may take the form of a showcase, making evident the professional products and behavioural results that will serve as proof to the summative process – *dossier portfolio* – or it may assume a more reflexive nature, but in which the list of relevant evidence is maintained for the achievement of the formative and/or summative processes – *development portfolio*. We are particularly interested in the *personal portfolio* given its highly reflective, personalised and holistic character. The individual begins by completing the portfolio with the description of his activities and accomplishments, and then reflects on them by analysing the personal competencies that he believes to have developed. It is only after a clear understanding of his qualities and defects and how he can further develop his personal competencies that a personal action plan will be drawn up, along with the specific objective(s) of development [4; 5].

The VPL process consists of five stages:

1. *Commitment and awareness of the value of competencies* – it is important that the individual is aware of his competencies, as well as the value they have for himself and for others in certain moments and situations.

2. *Recognition of personal competencies* – identify and list skills by building a portfolio, complementing reflection with work experience, diplomas, employers' declarations, professional products, references or other documents that demonstrate the existence of a certain competence. The proof may be directed to the profession or position for which the VPL process is being developed. This stage is composed of a preparatory step and a retrospective step. The former is designed to

articulate a real need for skills in the different functional profiles of the organisation and the latter entails filling individual portfolios as well as gathering evidence of the learning processes in a recent past.

3. *Valuation or evaluation of competencies* – this stage focuses on the evaluation of the contents of the portfolio, and the competencies shown will be compared with a defined standard for this purpose. This will only be used to gauge the qualifications of the participant and will result either in organisational or national validation in the form of certificates, diplomas or career advancements or a valuation in the form of a career advice. This phase involves three different steps: defining the standard of the specific VPL process which can be any standard that meets the needs of the individual and/or organisation; the valuation and consequent evaluation of the portfolio according to the previously defined standard; and the validation of the learning proof. After completing these three initial stages, the retrospective part of the VPL process is done and its prospective power is about to begin.

4. *Development plan* – transformation of validation and/or advice into a personal action plan that will be based on learning activities that can be developed in formal or non-formal learning environments, in work situations, during a change of position, by offering coaching or by creating an environment in which informal learning is stimulated. This stage comprises the next two steps:

– first, a correspondence must be made between the development plan of the individual and the objectives of the organisation, which can be achieved simply by indicating that any type of individual learning is also for the benefit of the organisation or making the personal development plan an integral part of the larger organisation plan;

– secondly, the beginning of the customized learning/development of the individual, which implies learning independently of form, time, place and environment.

5. *Structural implementation of the VPL* – transmutation of this implementation into a personal strategy for updating the portfolio or into the human resources management of an organisation. The results of a pilot VPL should therefore be evaluated to show how implementation can take place from a tailor-made basis. Thus, an organisation should be able to use the structural VPL to meet the specific objectives defined in the pilot VPL, adding new objectives if needed [4; 5].

When applying the VPL approach the use of information and communication technologies should also be considered. Furthermore, open education opportunities become especially relevant when considering adult learning, since these learners have different time constraints – derived from family and work responsibilities – and their expectations also differ from those of “traditional” learners. In addition, the previous experiences of adult learners play a guiding role in their learning, whether it takes place for personal reasons or oriented towards a professional career [10; 16].

Even the establishment of productive relationships between employees, supported by the construction of an inclusive work environment, can be facilitated by the development of online training on foreign languages and diversity based on the VPL approach. Starting from an organizational, operational and personal analysis, it is possible to design a training program that intervenes in intergroup relationships, deconstructing stereotypes and positively impacting interactions in the work-

place. Consequently, six phases should be considered when preparing these education and training programs [13]:

1. *Selection of cultures or subgroups involved in the program* – program planners and executors should be knowledgeable about the cultures and groups involved, their elements and stories, as well as the relationships between those cultures.

2. *Defining program objectives* – they should be narrowly defined, for example, to reduce anxiety between groups or to improve non-verbal communication skills. The more specific the objectives, the easier it will become to design programs to achieve them.

3. *Choice of theories of culture and cultural change relevant to the achievement of objectives* – culture is, in fact, too complex to be understood without the organizing principles provided by theory.

4. *Achievement of objectives* – based on the selected objectives, as well as theories and relevant empirical research, we will have to decide how to achieve the objectives. Thus, we can use research to specify the psychological and communication processes that will lead to the results we want for the program. Psychological processes may be cognitive or affective. Therefore, we can activate analytical reasoning, change of perspective and self-regulation or emotional empathy and the creation of positive intercultural emotions. Communication processes, on the other hand, may involve active listening, opening up to the Other's perspectives and responding effectively to intercultural misunderstandings.

5. *Selection of techniques, exercises and materials* – this is done considering the psychological and communicative processes defined above. In this way, if empathy is the process and reducing prejudice is the goal, we can infer that by listening, with empathy (open mindedness to feel the emotions of the Other and view the world from his perspective), to narratives by members of another group will lead to increased appreciation. As these techniques, exercises and materials are selected, the contexts in which the program will be carried out must also be considered, since some techniques will be more appropriate to certain contexts (for example, practices appropriate to a child audience, will not be suitable to an adult audience and vice versa). Steps 4 and 5 are mutually related, given that theory and research must be used to create techniques, but the design of techniques can lead to the improvement of theories and the emergence of questions suitable for research.

6. *Evaluation of the effectiveness of the program* – not only the results should be evaluated, but also the processes leading to them. This step is decisive for the accumulation of knowledge and research progress.

In short, the relevance of the elaboration and execution of training programs in the area of foreign languages and diversity in the business context boils down to its effective management, valuing the uniqueness of the employees while, at the same time, working on their sense of belonging and identification with the company [7].

Methods of research. The hint of human capital theory as a dominant approach in the field of adult education and training is explained by the speed of changes in the industry, which implies an investment in training based on maximizing the usefulness of individual skills [12]. The bias in the human and transformative qualities of education makes it possible, in a few decades, to move from

“learning to be” to “learning to earn” [9]. Hence, it is critical to develop a problematizing approach that focuses on learning and criticality built from experience and that highlights the wealth of knowledge and skills developed by each person instead of possible deficits [14].

Based on this analysis, we formulated the following problem: to what extent does a training model, based on the VPL approach and supported by principles of the educational sciences, can contribute to individual empowerment and, consequently, to an improvement in the organizational quality of Portuguese SMEs?

To solve it, the following *general objectives* were defined:

1. To know how on-the-job training is carried out in Portuguese SMEs.
2. To understand the extent to which a training model, based on the VPL approach, provides a (re)qualification of workers that addresses the needs of companies.
3. To apply principles of educational sciences for quality training.

Regarding *general objective number 1*, we defined the following specific objectives:

- 1.1. To know the legislation on the access and frequency of on-the-job training sessions.
- 1.2. To know how the training and/or requalification of the employees is processed.
- 1.3. To understand how the quality of the training sessions is controlled and/or feedback is obtained from the trainees.

Concerning *general objective number 2*, we defined the following specific objectives:

- 2.1. To implement a training model in accordance with the proposals presented by key informants.
- 2.2. To evaluate the implemented model.
- 2.3. To draw conclusions.
- 2.4. To propose an on-the-job training model that is feasible and adapted to Portuguese SMEs.

With regard to *general objective number 3*, we defined the following specific objectives:

- 3.1. To mobilise knowledge, articulating theory and practice.
- 3.2. To promote self-directed learning that enables the learner to be involved throughout the training process.
- 3.3. To overcome internal and external barriers through the development of language and intercultural skills.

This research involved two distinct moments of analysis and data collection – *Study 1* and *Study 2* – which are directly related to the general and specific objectives already stated and which complement each other. Therefore, the *participants in Study 1* were:

- 1) the Head of the SME Academy of the Portuguese Support Institute for Small and Medium Enterprises and Innovation;
- 2) the Head of the Training Academy of a company specialized in management services and development of applications and infrastructures.

Our choice fell on these two academies, given that, in the first case, we are dealing with the state body responsible for promoting different learning initiatives,

specifically aimed at employees of Portuguese SMEs, and in the second case, we are faced with an institution that, while focusing its services in the area of information technologies, it sometimes needs to recruit outside this area, opting for the requalification of the worker in order to provide full integration of the same.

Study 1 was an *exploratory research* that consisted of:

- gathering and analysing official documentary sources (Portuguese legal documentation and European documentation) about on-the-job training;
- conducting exploratory interviews with two key informants in order to obtain information that can be compared and subsequently applied, so we interviewed the Head of the abovementioned academies.

Thus, Study 1 allowed us to collect structural data so as to analyse the official perspective of aspects related to on-the-job training [1; 2; 6; 15].

Participants in Study 2 were selected after analysing the results obtained in Study 1. Therefore, the selection followed the following criteria:

- ensure the presence of micro, small and medium-sized companies and some sectorial diversity;
- companies that, recognizing the potential value of training for the development of their activity in the market, consider that they do not feel its beneficial effects and/or do not have enough time to allow their employees to participate in training programs;
- companies whose employees consider having skills that they are unable to develop or demonstrate and for which they have no qualifications.

The number, sectors and categories of Portuguese SMEs covered by Study 2 are shown in the Table.

Table

Number of companies, sectors and categories of Portuguese SMEs

Number of companies	Sectors	Categories		
		Micro	Small	Medium
1	Information and communication technologies	1	–	–
2	Tourism	1	1	–
1	Nursing homes	–	1	–
2	Car repair	–	2	–
1	Construction	–	–	1
1	Industrial maintenance	–	–	1
1	Packaging trade	–	1	–
1	Health and aesthetics	–	1	–
Total		2	6	2

As we can see, two micro-companies, six small companies and two medium-sized companies participated in Study 2, resulting in a total of ten companies and extending their area of expertise to eight different sectors.

After analysing the propositional content of the data gathered in Study 1 and establishing the respective conclusions, we proceeded to define a dynamic intervention strategy (Study 2) directly related to general objectives 2 and 3. Thus, we opted for an action-research methodology that enabled the construction of a critical dialog between theoretical reflection and practical context [1; 2; 6; 15]. The implementation of the training model based on the VPL approach was carried out as follows:

1. *Informal meetings* with the managers of the selected SMEs (October – November 2019).

2. Acquisition of the website domain *catarinagarcia.pt* and installation and configuration of the Moodle platform (November 2019).

3. Construction of the course *Mapping talent: Management, evaluation and operationalisation of skills* (November – December 2019).

4. *Course availability* for enrollment and attendance of participants (1st January – 22nd January 2020).

Technology has taken a leading role in the execution of Study 2, providing a structured and collaborative learning environment. In effect, we sought to reconcile the temporal restrictions and the needs and interests of each learner through the exploitation of an open educational resource that, by stimulating self-reflection, acted as a means of promoting self-teaching and the understanding of the Self in the personal and professional aspects [10]. Starting from a “bottom-up” approach, which enabled the analysis of skills developed informally and non-formally, individual action plans were defined to be implemented through future formal learning, mentoring or coaching activities [4; 5; 15].

During *Study 2*, data were collected through:

1. *Two questionnaires* – a questionnaire applied before the beginning of the course and a questionnaire applied after the end of the course.

2. *Personal documents* – responses posted on forums and/or chats; individual analysis assignments; logbook; final presentation.

The analysis of the data obtained followed the norms of an analysis of propositional content, revealing instruments of great heuristic value.

Results and discussion. The *completion of Study 1* allowed us to conclude that the training and/or requalification processes presented by both interviewees constituted two apparently positive examples, since:

1) both understood the need to combine technical and behavioural skills;

2) both valued:

– learning in the workplace;

– the experience and qualification of the training team;

– the adaptability and versatility of the employee;

– the adequacy of training projects and respective training methodologies to the specific context of the target audiences.

However, and bearing in mind that the training processes must consider fundamental elements of the research in education and training, the following aspects seemed to be lacking:

1) *the person's holistic understanding*, that is, the (re)qualification and adaptability of the employee should not be restricted to the possibility of maintaining and/or obtaining a job or building a career;

2) *the definition of a methodology for evaluating and monitoring training processes* that focus on the development of individual skills and not only on the evolution of the company;

3) *the combination of moments of non-formal and informal learning*.

Study 2 was developed to bridge these gaps. Hence, the following features were withdrawn from it:

1) *reflecting on previous learning* is the main factor of clear awareness of developed and underdeveloped skills;

2) *the development of linguistic and intercultural skills* is a relevant element in the business context;

3) the planning of activities should include *literary and cinematographic excerpts* that arouse curiosity and interest and, consequently, facilitate the reflective process;

4) follow-up throughout the training process and, in a more practical way, the individual action plan enable the analysis of future development needs – which may be achieved through training or mentoring processes – in a clear association between moments of informal, non-formal and formal learning;

5) the assessment of the entire training process is carried out individually by the participants, making their satisfaction/dissatisfaction visible during the follow-up, as well as in understanding, accepting and complying with the provisions of the individual action plan.

Conclusion. The first aspect to highlight is the theoretical support that the VPL approach gave to this study, in general, and to the training model, in particular. Firstly, by conceptualizing a process that operates from the bottom up, providing an evident opening to the action of the adult learners who control their own learning. In addition, the focus on individualized support, which promotes the learners' reflexive ability, encourages them to continue their learning, ultimately transforming themselves into lifelong learners [3–5].

The second aspect to be highlighted refers to the way the investigation was conducted. The continuous interaction between research, action, reflection and evaluation led us to the action-research method, with its objectives oriented to the collection of systematic information that allowed the production of theory leading to the design of a training model [1; 2; 6; 15]. Therefore, the division of this research into two distinct moments of analysis and data collection – Study 1 and Study 2 – proved to be essential, since it made it possible to compare and contrast the data obtained and for this information to be considered in the definition of a dynamic strategy. In this sense, the research was undertaken with a view to building an approach that would make it possible to combine the aspects that should integrate the development of the adult learner: economic, sustainable, community and personal [9; 14].

The need to counter the priority indicators, for the attendance of training processes, granted to individuals exercising functions considered strategic in the company [12], takes us to the third aspect to focus on: the role of linguistic and intercultural competences in the business world. This context represents a social microcosm in which, as evidenced by the research, individuals from different cultures can live together. In addition, the opportunity to participate in the global market presents itself as a viable hypothesis. Consequently, the learning of at least one foreign language and the concomitant analysis of the relationship between the Self and otherness represent an investment of relevance to consider for the formation of individuals sensitive to linguistic, cultural and semiotic diversity [8; 17].

In the light of the importance attributed to skills previously developed by adults through informal or non-formal means, as well as the need to encourage self-

directed learning, the use of information and communication technologies comes as the fourth aspect to consider. In effect, the decentralization of resources and the consequent possibility of accessing training processes at any time and in any place, allow adults to personalise their learning, adapting it to their needs. In addition, the value that begins to be granted to the attribution of digital credentials (medals) may be synonymous with a future new way of certifying learning [10].

The fifth aspect to be emphasized focuses on the individual action plan and its importance as a tool to support skills development. Once again we report on the realisation of personalised and self-directed learning, essential characteristics for the development of a lifelong learner [3–5].

The five points that come from our research and which, in a synthetic way, we have just presented, demonstrate that a training model that combines principles of the educational sciences and fundamentals of the VPL approach can contribute to the empowerment of the individual and to a consequent improvement in the organizational quality of Portuguese SMEs.

This study, although innovative, due to the way it seeks to balance the four spheres of the development of learning – economic, sustainable, community and personal – in the specific context of Portuguese SMEs, does not exhaust the theme. It constitutes a provocative and challenging contribution, paving the way for further research.

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Научная статья

Повышение качества португальских малых и средних предприятий через оценку компетентности

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Аннотация. *Проблема и цель.* Поскольку мы переживаем ключевой момент с точки зрения технического прогресса и его влияния на сферу труда, исследование процессов обучения на рабочем месте приобретает доминирующую роль. Кроме того, возникает необходимость в изучении подхода, способствующего достижению баланса между четырьмя сферами развития обучения – экономической, устойчивой, общинной и личной.

В свете изложенного данное исследование видится актуальным и направлено на определение степени влияния модели обучения, основанной на подходе VPL (Validation of Prior Learning) и подкрепленной принципами образовательных наук, на расширение прав и возможностей отдельных лиц, а следовательно, повышение организационного качества португальских малых и средних предприятий (МСП).

Методология. Разделение исследования на две части позволило собрать и проанализировать структурные данные (исследование 1), которые послужили основой для определения динамической стратегии (исследование 2). Несмотря на проведение в разное время, исследования оказались взаимодополняющими. На самом деле разработка модели обучения основывалась, во-первых, на результатах, полученных в ходе исследовательских бесед с ключевыми информантами, и, во-вторых, на данных, полученных в ходе всего процесса обучения, в котором приняли участие девяносто два сотрудника из десяти португальских МСП различных категорий и секторов.

Результаты. Модель обучения, возникшая в результате взаимодействия теоретической рефлексии и практического контекста, включает в себя пять компонентов: дистанционное обучение, признание навыков, языковые навыки, межкультурные навыки и индивидуальный план действий.

Заключение. Исследование вносит важный вклад в тему обучения без отрыва от производства в португальских МСП, одновременно открывая путь для дальнейшего изучения данного вопроса.

Ключевые слова: обучение на протяжении всей жизни, человеческие ресурсы и навыки, технологии в обучении на протяжении всей жизни, иностранные языки и культурное разнообразие, подход VPL, обучение без отрыва от производства, МСП

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