ACADEMIA
ISSN, 2241-1402
http://hepnet.upatras.gr

Number 22, 2021

Academia A publication of the Higher Education Policy Network

Learning at the University - conceptions of university teachers[1]

Elisa Chaleta[2] & Margarida Saraiva[3]
University of Evora

Abstract
This study investigates the conceptions of university teachers linked to the initial formation of teachers about what it is to learn at the University. The qualitative phenomenographic study presented was carried out with ten university teachers with more than 15 years of professional activity at the University and with an average age of 52 years, nine of whom are female and one male. The results showed stability in the conceptions of learning compared to previous studies; two main macro categories have been identified: superficial conceptions and deep conceptions. Learning conceptions were also identified as a process and as the development of social skills. In summary, teachers expressed different meanings of learning, and it should be noted that learning emerged conceptualized in a multidimensional and multifaceted way. In this group of teachers, different ways of conceptualizing learning are found, so the results point to the coexistence in the same subject of several conceptions about what it is to learn, and not a hierarchical structure of the conceptions in which the reproductive or superficial conception appears as subordinate to the transformative or profound conception. The results point to an inter-correlated model as a better descriptor of teachers' thinking about the nature of learning given the plurality of conceptions.

Keywords
Conceptions of learning; superficial and deep conceptions; university teachers; higher education; phenomenographic approach.

[1] This work is supported by the Project "Learning and Teaching at the University" (PTDC/ CED-EDG / 29252/2017) financed by FCT - Ministry of Science, Technology and Higher Education, Portugal Government.
[2] Universidade de Évora/ CIEP-UÉ, Portugal (mec@uevora.pt).
[3] Universidade de Évora/ BRU-UNIDE/ISCTE-IUL, Portugal (msaraiva@uevora.pt).

Introduction

Two decades after the Bologna Declaration, some changes in the framework of higher education are visible: the creation of the European Higher Education Area and the greater compatibility and comparability of education systems leading to the restructuring of most curricula to a new structure that was intended to be common, the increase in mobility programs and the recognition of foreign programs and diplomas.

The European idea of free movement of capital, goods, services and people was gradually transferred to the field of higher education (De Wit & Verhoeven, 2001) and traditional cooperation efforts adopted another plan: one of harmonization and integration. This aspect was accentuated in the so-called Lisbon Strategy, very similar to the Bologna process (Van der Wende & Huisman, 2004) whose ambitious goal was to provide the European Union with a knowledge-based economy, making it the most competitive and dynamic in the world by 2010. This goal led to the involvement of the European Commission in terms of funding research, professionalization and lifelong learning. Although the main focus of this process was essentially research, development and innovation (Witte, 2006), it also ended up having an impact on the teaching and learning network as most European higher education institutions comprise both components (teaching and research).

In the study we carried out on teachers' perception of university (Sebastião & Chaleta, 2018), we found university teachers to be apprehensive in the face of changes and to have a more pessimistic view in terms of identification or institutional affiliation, a certain feeling of isolation, of lack support and cooperation and a growing critical attitude towards the bureaucratization of teaching activity, seen as harmful interference in the quality of work, particularly in terms of teaching and research. In general, we consider that teachers did not reveal great enthusiasm or satisfaction in the way they were experiencing their professional activity, which seemed to stem from the multiple demands and the multiplicity of tasks required by teaching, research and extension, in the framework of an institution perceived as unaware of this reality and the difficulties experienced. This teachers' perception, built in the context of remarkable changes in the last two decades, may perhaps result from teachers tending to confront a professional identity built twenty or thirty years ago, with a different reality that entails new demands. Their appreciation of the current situation may arise, precisely, from the confrontation of this idealized identity, built at a time when the nature and way of

functioning of the University were different and therefore causing apprehension, demotivation or displeasure due to the tasks that the new University requires.

After the greater pressure and demand in the context of research that, meanwhile, has been reorganized, the focus is now on guaranteeing 'quality teaching' and there are greater demands placed on teachers in pedagogical and technological terms. The idea of a pedagogy at university was, until about two decades ago, little more than a metaphor. Even today it is common to hear people say 'the university is not a high school', an expression from which we have been able to extract little meaning beyond the fact that we are talking about different levels of education, or 'any good researcher can give minimally acceptable classes' which, *per se*, reveals the conception of a transmissive teaching model (centered on the teacher), in clear contradiction with one of the central pillars of the Bologna reform that gives the student a clear centrality.

Based on the assumption that teaching should be the way to achieve the true objective which will naturally be learning, and after countless studies carried out with students on what it is to learn, in this work we seek to know the conceptions of university professors about the same phenomenon. In this case, we opted for teachers more linked to initial teacher education due to the impact it may have on future education professionals, and we explored teachers' conceptions based on the concepts initially produced by the literature to identify the students' conceptions of learning in the context of higher education.

Marton and Säljö in Sweden initially operationalized the conceptions of learning from phenomenographic studies carried out with university students. Since 1970, Marton has been concerned with explaining the inter-individual differences related to learning processes and results and sought to define methodologies appropriate to their analysis (Marton, 1981; 1983). He gradually became interested in a perspective that he called second order, in which research on learning began to focus on students' descriptions, "to describe the world as the student experienced it" (Richardson, 2000, p. 32), and not in a first-order perspective, based on research on learning from artificially conceived experiences.

The description of the students' experiences and their perceptions of the contents and processes of academic learning was called "phenomenography" by Marton, since the beginning of his studies (Entwistle, Koséki & Pollitt, 1987; Marton, Housell & Entwistle, 1984; Marton & Säljö, 1976a;1976b). These investigations, although they are part of a vast set of phenomenographic studies (Hasselgren, 1996), are of decisive

importance, as they illustrate the central aspects of phenomenological options, namely the use of individual interviews and their exhaustive analysis, and the focus on the description categories that delimit the arrival to conclusions and the emphasis on the specific contextual character in which they arise (Dahlberg, 1992; Marton, 1997; Svenson & Theman, 1983). For Marton (1986), the central objective of phenomenographic research was to identify, using a qualitative methodology, the different ways in which people experienced, conceptualized and understood various aspects of a phenomenon or the world around them. The meanings constructed by the subjects about their academic context or educational situations, as well as their personal perceptions, would inevitably have an influence on the learning process (Prosser, Trigwell & Taylor, 1994). It is not surprising, therefore, that the term phenomenography has gained increasing emphasis in the context of research on learning experiences in higher education and that it has subsequently extended to other universities. Phenomenography refers to the description of certain phenomena, as described by the individuals who experience them, and it tries to answer questions related to the critical aspects resulting from the different ways of experiencing the world and the reasons that determine whether people deal with them more or less effectively. In summary, phenomenography looks for qualitative differences in different ways of experiencing reality (Hasselgren, 1996; Richardson, 2000).

According to Marton and Booth (1997), the phenomenographic investigation of learning suggests that there is a very close relationship between the real world (outside) and the subjective world (inside). The experiences of each subject are always partial in relation to a total phenomenon, which leads to individual differences between all people. The knowledge that each acquires represents, on the other hand, particular ways of perceiving, experiencing and thinking. Understanding then represents the set of relationships that develop from possible experiences between an individual and a particular phenomenon.

Phenomenography, in the context of learning and study, presents an ontological perspective, according to which the subject (student) cannot be separated from the object (learning content), contrary to what happens in many cognitive investigations (Limberg, 1998; Marton, 1981; 1994; Uljens, 1996). Marton (1979; 1981) considers two fundamental aspects in his investigation: the first, the search for why, emphasizes facts as independent entities and the second, the search for what and how, underlines the meanings that occur and are intrinsically related to the subject and its context. The

phenomenological concept of learning is thus conceived as the subject's ability to experience something and as a change in the relationship between the subject and the world, focusing on descriptive issues (Runesson, 1999; Uljens, 1996): what (noematic pole), how (noetic pole) and why (explanatory questions). This type of investigation presupposes a new paradigm and a particular (qualitative) methodology that supports what occurs inside the student, given that what is sought is his perspective on his own learning process (Marton & Pong, 2005).

From the question "what is it for you to learn?" Marton and Säljö, (1976a; 1976b) identified two macro categories of contrasting conceptions of learning, the superficial conception and the deep conception. Students who presented a superficial conception of learning believed that the content should be memorized, through attention to specific details, so that they could later be reproduced. Students who presented a deep learning conception had the objective of constructing meaning / sense (Marton, 2015; Purdie, Hattie & Douglas, 1996).

Within the two macro categories of the learning conceptions, five categories were identified resulting from qualitative differences in terms of levels of results / understanding, arranged hierarchically in the upward direction of complexity and / or depth. The first three conceptions are called superficial and, in this case, learning is seen as: i) increase of knowledge (quantitative), ii) memorization and reproduction (of what is supposedly required) and iii) application of knowledge (acquisition of facts, procedures and skills that must be retained for application in practice). The latter two conceptions are considered profound and involve: iv) understanding (abstraction of the underlying meaning) and v) seeing things differently (interpretive process aiming at understanding reality). Subsequently, Marton, Dall'Alba and Beaty (1993) considered an existential aspect of learning. With regard to the category of learning as an application, Eklund-Myrskog (1996) and Giorgi (1986) consider that it can be integrated in the generic conception of learning as transformation and Bruce and Berger (1995) conceive it as a category of transition between the two general conceptions (between the superficial and the deep).

Further studies identify, in addition to the initial six conceptions, other conceptions such as personal fulfilment, duty, process not limited by time or context, social and interactive process, experiential process, value (…), however these varied considerably according to the samples analysed. These conceptions can be identified today from the Conceptions of Learning Inventory - COLI that Purdie and Hattie (2002)

developed to evaluate the learning conceptions of university students. The instrument resulted from qualitative studies conducted initially in which nine conceptions of learning were identified (Purdie, Hattie, & Douglas, 1996): increased knowledge, memorization and reproduction of information, use of information as a means to an end, understanding, seeing something differently, personal fulfilment, duty, process not limited by time or context and development of social skills. The nine factors identified in the qualitative studies did not remain in the instrument, which presented only six factors: I - Information gain (INFO), II - Remember, use and understand information (RUU), III- Duty (DUTY), IV - Personal change (PERS), V - Process not limited by time or context (PROC) and VI - Development of social skills (SOC). The factors obtained, although including deep and superficial conceptions identified in previous studies, do not allow a clear distinction between the superficial and the deep construct proposed by qualitative research.

The validation of COLI for the Portuguese student population with an initial sample of 970 students and one of 1014 later (Chaleta, 2015, 2018), showed in both situations a different structure from that obtained by Purdie and Hatti (2002). The main differences are found in the concepts of information gain (INFO) and remember, use and understand information (RUU) which are structured in three factors that we rename as information gain and recall (GIR), integration of new information (INI), understand and apply information (CAI). This data is in line with studies that discuss the concepts of memory and understanding and the need to re-analyse them in the context of higher education learning. The concept of learning as a duty (DUTY) is also not identified, keeping the factors learning as personal change (PERS), learning as a process (PROC) and development of social skills (SOC). All factors, with the exception of SOC ($\alpha = .67$) presented values of internal consistency greater than .70 (Chaleta, 2015).

Although initially considering that there was a developmental hierarchy of conceptions (from superficial to deep), some authors contested this hierarchy, considering that conceptions can be influenced by contextual and cultural aspects (Makoe, Richardson & Price, 2007). The structure of the two macro categories of the identified concepts (superficial / deep), has remained similar in numerous cross-cultural studies carried out over several decades (involving people of different ages and from different learning contexts) and also in the Portuguese student population (Chaleta & Grácio, 2016; Duarte, 2004). In general, the research carried out in the Portuguese university context revealed results similar to those of numerous studies carried out

cross-culturally in which a predominance of superficial conceptions was found (Chaleta, 2014, 2015, 2018; Chaleta & Entwistle, 2011; Chaleta et al., 2013) and was influenced, as a rule, by the students' perception of what was required by the academic context / course. The researchers explain the predominance of superficial learning as a result of the process of massification of higher education, which (also for economic reasons) responded with a transmissive model and, consequently, an evaluation model requiring more processes of memory than understanding (Entwistle, 2009; Marton 2015).

Since the literature demonstrated that the conceptions could be influenced by the academic context, in which teachers are decisive actors, it became essential to identify teachers' conceptions of learning. It is commonly known that, regardless of the level of education, the ultimate goal of education is transformation, that is, deep learning (Entwistle, 2018). There is some evidence of a greater predominance of superficial conception in primary and secondary education, where there is greater pressure to prepare students for national exams that largely require the factual reproduction of knowledge (Anthony, 1994; Brown, Lake & Matters, 2008). An identical result emerged in the study carried out by Brown (2002) with New Zealand high school teachers who had, for the most part, transformative conceptions of learning, but who, nevertheless, would resort to reproduction strategies to maximize students' academic performance in the evaluations carried out at the end of the year.

In a qualitative phenomenological study conducted by Boulton-Lewis *et al.* (2001), sixteen conceptions of learning were found in secondary school teachers. Of these conceptions, ten were categorized as reproductive or superficial conceptions (six related to the acquisition and reproduction of content and skills; four related to the application of knowledge and skills) and six were classified as transformative or profound conceptions (three related to the development of understanding by students; three as personal transformation).

Brown, Lake & Matters (2008) carried out a study on the learning conceptions of university teachers using the categorization proposed by Entwistle and Peterson (2004). In this categorization, reproducing conceptions of learning included i) remembering things, ii) getting facts or details, and iii) applying information, while transforming conceptions of learning included iv) seeing things in a different and more meaningful way, and v) understanding for myself. The advantage of this research was that the participants were able to express their level of agreement in relation to both conceptions, avoiding classification in only one category of the learning conception.

The results of the study showed stability in the conceptions of learning compared to previous studies, and a hierarchical structure of the conceptions was not identified (that is, reproduction is subordinated to transformation). The authors argue that an interrelated, rather than hierarchical, model constitutes a better descriptor of teachers' thinking about the nature of learning.

Thus, the results indicated the plurality of conceptions, instead of a hierarchy or continuum as proposed by Richardson (2007), which confirms the argument that teachers' conceptions are numerous and simultaneous, regardless of the analytical hierarchies of previous studies (Fodor, 1998; Lakoff and Johnson, 1999). As with students (Entwistle & Peterson, 2004; Purdie & Hattie, 2002), research has shown that university professors could have both conceptions (although one of them could be more dominant), so you can expect them to be able to invoke either conception depending on the context. As transformative or profound learning concepts are associated with student-centered teaching and curriculum and better academic performance (Entwistle & Peterson, 2004), teacher training and professional development policies need to take into account the knowledge developed in this domain.

1. Research purposes

In this work, framed by qualitative phenomenographic research, we intend to identify the learning conceptions of university teachers linked to initial teacher training.

We also intend to verify if the two macro categories of the learning conceptions (superficial / deep) remain stable in this sample and if other conceptions, also found by the investigation, are present in the speech of these teachers.

2. Method

The qualitative phenomenographic study that is presented underlies the concern with the definition and deepening of how knowledge is produced and also with the processes involved in the construction of that same knowledge. As Moustakas (1994) mentions, the analysis of lived experience occupies a central place in the qualitative phenomenographic approach (Marton, Dall'Alba, & Beaty, 1993). Thus, it is important to know the meaning of phenomena for the individual in their natural context, taking into account the meaning attributed to them (Holanda, 2006). Qualitative research, seen in a phenomenographic perspective, accepts the existence of multiple realities

constructed either individually or collectively and seeks to understand the phenomena from the point of view or perspective of the subjects themselves (Marton 2015). In summary, the phenomenological study that we present has an exploratory character that allows the analysis of the subjects' conceptions, observing their variation and architecture from the descriptions made, and allowing us to understand how university teachers conceptualize learning.

2.1 Participants

Participants are university professors involved in teacher training courses at various levels of education and who have made themselves available to participate in the study. The choice of these teachers was due to a particular interest in knowing the perspective of teachers with greater affinity with the area of education. Of the fifteen teachers who initially made themselves available to participate in the study, only ten responded.

The participants were aged between 47 and 65 years old (average of 52 years old), nine of whom were female and one male. Four teachers had between 15 and 20 years of service at the University, five between 20 and 30 years and one had 40 years of experience. Regarding the initial training, two teachers (S5 and S7) reported training in the area of Educational Sciences, five in the area of Exact Sciences (S1, S2, S3, S8 and S9), three of which underwent specific teacher training (S1, S2 and S9), and one referred to training in the humanities (S4). Two of the teachers did not respond to this aspect (S6 and S10).

We can also state that almost all teachers had had a doctorate degree for over ten years, with only one of them having obtained the degree more recently (S5). In relation to the courses they teach, six referred to the 1st and 2nd Cycle of Pre-School Education and Basic Education and four referred to participating in the Masters in Teaching (Basic and Secondary Education).

2.2 **Instruments and procedures**

This work is part of a broader study on the perspective of university professors on University today. At first, we defined from the literature a set of questions asked later, in an exploratory study, to two teachers with the aim of verifying the pertinence, clarity and comprehensibility of the questions. For ethical reasons, all participants were guaranteed anonymity, as well as the possibility of withdrawing at any time (informed

consent). In order to obtain relevant information for the characterization of the sample, a sociodemographic form was also applied.

The teachers were numbered from one to ten (S1 to S10) and the registration criterion consisted of noting all the different statements present in the speech of each participant as belonging to a certain theme or category and not the number of times they were mentioned by each one of the participants, also obeying the principle recommended in these cases of mutual exclusion (Bardin, 2006). After the transcription of the interviews, we proceeded to analysing them; the analysis followed the methodology proposed by Bardin (2006) of three sequential steps: the pre-analysis, which concerns the organization phase and aims to systematize the initial ideas, the exploration of the material, which consists of coding, decomposition or enumeration operations, and the treatment of the results obtained (inference and interpretation). The criterion for the proximity of the teachers' discourse was present as a basis for the classification of information.

The validity in the categorization process depends on matching the objectives outlined, with the pertinence and productivity. Fidelity is directly related to the encoding instrument as well as the encoder (Ribeiro, 2010). Thus, the categorical structure we obtained was submitted for analysis to independent judges. In order to verify the validity and fidelity of the analysis categories (Esteves, 2010), we also verified the intracoder and intercoder fidelity. Intra-encoder fidelity means that the same analyst classifies the same recording unit in the same way even at different times. Intercoder fidelity means that different analysts, working with the same material, encode the registration units in the same way. In this investigation, to guarantee the issues related to reliability, validity and inter-judge agreement, a panel of three judges was constituted, who reviewed the coding analysis and resolved the discrepancy situations. The level of agreement between the evaluators was 96% and was calculated from Cohen's kappa coefficient (Cohen, 1960).

3. Results

Next, we present the results related to the question 'What is learning for you?' The analysis of the teachers' discourse allowed us to verify that they fit, in general, in the categories found in the qualitative research carried out previously. The two macro categories found in most studies on learning concepts (superficial / deep) were

identified, together with additional concepts centered on aspects related to how one learns (learn as a process) and what one learns in a transversal way (development social skills). These results can be explained by the very nature of phenomenographic research in this field, which, as Marton (1979; 1981) suggests, involves, at first, the search for why (in which facts are emphasized as independent and more general entities about a given phenomenon), resulting in the two macro categories of conceptions that are invariably found in the numerous cross-cultural studies. The second step, the search for what and how (in which the meanings that are intrinsically related to the subject and their context are underlined), can determine the emergence of aspects that involve behaviors or procedures susceptible to some cultural variation.

With regard to reproductive conceptions, we found the conception of learning as an increase in knowledge and as an application, but the conception of learning as memorization and mechanical reproduction of knowledge was not found.

a) Superficial learning conception

The conception of learning as 'knowledge increase', although it is considered superficial, naturally appears in teachers' discourse, since the acquisition of factual information, even if instrumentally in a first phase, has a structural role in the subsequent levels of construction of knowledge as we can see in the following examples:

> *"At this moment I think that learning at the University is acquiring a set of knowledge"*. (S1)
>
> *"It is the opportunity to access the knowledge produced over time and based on tradition, research and study"*. (S7)
>
> *"… Increase scientific knowledge…"* (S9)

'Apply and use knowledge' is only mentioned by one of the teachers although the transfer of knowledge to the contexts of practice is one of the dimensions of teacher training. This category introduces a qualitative change in the framework of superficial conceptions (being considered as transitional) since the information is seen as capable of being applied. More than a concept of learning to apply appears in the teachers' discourse as a permanent relationship between grounded knowledge and doing / applying.

"... interactive dialogue between scientific knowledge and practical knowledge" (S5).

b) Deep learning conception

The largest amount of information produced by teachers concerns the deep learning concept. In the discourse we find the conception of learning as understanding, seeing something differently and changing as a person.

Learning as 'understanding' involves a moment of crucial development that translates into learning conceived as a construction of meaning for oneself, a relationship with previous knowledge and experience where information takes on a personal meaning. As we can see in the examples, it refers to the critical interpretation of information, to the development of reasoning, imagination and creativity.

"Learning at the university has to be inhabited by the flame of the imagination and for that the teachers themselves have to live a true intellectual adventure". (S3)

"Learn to seek and critically interpret the facts that constitute or may come to constitute knowledge". (S4)

"It is to develop critical thinking". (S5)

"The development of a critical spirit... especially in the area of Social Sciences and Humanities, of articulating spaces / times of reading with informed, critical debate". (S8)

"... And above all to develop reasoning and creativity". (S9)

The conception 'seeing things differently' refers to interpretive processes aimed at understanding the reality, involving, simultaneously, the transforming intervention of that same reality.

"Learning, in any context and not just at the university, is the possibility to reconstruct and expand meanings about the world". (S5)

"The development ... of the ability to read the world, discuss it and intervene in a transformative way ...". (S8)

"Perceive and better understand the world". (S10)

The concept 'change as a person' refers to personal development and change considering the existential dimension of learning, that is, the close relationship between knowledge and the person's development process.

"... The relationship with knowledge develops in an intimate relationship with the life of the learner (intellectual, social, affective and aesthetic)". (S3)

"Have the opportunity to evolve as a person". (S9)

c) Conception of learning as a process

In addition to the superficial / deep dimension, the concepts of 'learning as a process' and 'development of social skills' also emerge, as in the qualitative study carried out by Purdie, Hattie and Douglas (1996).

In the concept of 'learning as a process', learning is conceptualized as a process that cuts across the subject's entire existence and context of life (not limited by time or place) and that involves the subject itself (individualized, experiential).

"... The ability to conduct one's own learning". (S5)

"Learn to learn". (S6)

"Develop skills to learn throughout life". (S10)

d) Conception of learning as development of social skills

In the concept of 'development of social skills' we found a process that involves learning experiences of a broader scope or transversal necessary to the individual's life path.

"It should also be an opportunity for students to actively participate in field research, to be also actors in the production of knowledge and to be stimulated to one day be agents of innovation and scientific and technological rigor in society." (S7)

"Develop some skills that allow you to start a profession". (S10)

Final considerations

The results obtained in this study show stability in the conceptions of learning compared to previous studies. Thus, the analysis of the teachers' thinking about what it is to learn at the University revealed the presence of the two macro categories of conceptions (superficial and deep).

In relation to the superficial conceptions, we identified the conceptions as acquisition/increase of knowledge implying an action of the subject, centered on a

vision that requires the incorporation by the student of something that is external to them (knowledge). The reference to the application of knowledge by only one of the teachers was unexpected considering that the initial training of teachers involves practices in educational contexts. The superficial conception related to memorization and mechanical reproduction was not found in the speech of these teachers.

With regard to deep conceptions, these encompass a transformative vision of learning that implies a greater and more complex activity of the subject in relation to a conceptual or holistic change, focusing, in particular, on meaning and change (understanding, seeing something differently, changing as a person).

Learning conceptions were also identified as a process and as the development of social skills. Although they do not occupy the centrality of the previous ones in the investigation, these conceptions were also found in varied qualitative cross-cultural studies. The conceptions described as a process and the development of social skills involve, on the one hand, skills to conduct and regulate one's own learning and, on the other, the development of necessary transversal skills along the existential pathway, both personally and professionally.

In summary, teacher's express different meanings of learning, and it should be noted that learning appears conceptualized in a multidimensional and multifaceted way. In the same teacher different ways of conceptualizing learning can be found, and, taking into account previous studies (Richardson, 2007), the results point to the coexistence in the same subject of several conceptions about what it is to learn, and not a hierarchical structure of the conceptions (reproduction as subordinate to transformation). The results point to an inter-correlated model as a better descriptor of teachers' thinking about the nature of learning given the plurality of conceptions.

The results show that teachers in general have deep conceptions about what it is to learn, so it is necessary to have some constancy in their action to allow students to develop the conceptions of learning that lead to a more comprehensive and deep learning, avoiding educational practices that contradict them (particularly in assessment situations). Therefore, there is an urgent need to reconcile the development of the teacher's thinking about what it is to learn with the teaching and assessment practices that should privilege, above all, deep learning strategies, and the possibility for students to learn to self-regulate their own learning process or 'learn to learn'. Implementing assessment practices that call for understanding and encourage the progressive construction of personal goals and a learning / life project can influence not only the

students' conceptions but also their attitude towards learning, the amount of effort developed and, consequently, the academic results obtained.

Some studies indicate that university professors reveal some apprehension in the face of changes and a more pessimistic view in terms of identification or institutional affiliation, a certain feeling of isolation, lack of support and cooperation and a growing critical attitude towards the bureaucratization of teaching activity seen as harmful interference in the quality of work, in particular in terms of teaching and research (Sebastião & Chaleta, 2018). Although teachers' assessment of the current situation may result from the confrontation of an idealized identity built at a time when the nature and way of functioning of the University were different, which is associated with a certain pressure to respond to a large number of tasks resulting from the ever closer relationship between the various dimensions of teaching activity, it is important to realize that this will inevitably have an impact on the quality of teaching and, consequently, on the quality of learning.

References

Anthony, G. (1994). Learning strategies in the mathematics classroom: What can we learn from stimulated recall interviews? *New Zealand Journal of Educational Studies, 29*(2), 127-140.

Bardin, L. (2006). *Análise de conteúdo.* Lisboa, Portugal: Edições 70.

Boulton-Lewis, G., Smith, D., McCrindle, A., Burnett, P. & Campell, K. (2001). Secondary teachers 'conceptions of teaching and learning. *Learning and instruction,* 11: 35-51.

Brown, G. (2002). Student Beliefs about Learning: New Zealand Students in Year 11. *Academic Exchange Quarterly, 6*(1): 110-114.

Brown, G., Lake, R & Matters, G. (2008). New Zealand and Queensland teachers' conceptions of learning: transforming more than reproducing. *Australian Journal of Educational & Developmental Psychology*, 8: 1-14.

Bruce, C. & Gerber, R. (1995). Towards University Lectures' Conceptions of Student Learning. [*http://sky.fit.qut.edu.au/frill/bruce/highed.html*].

Chaleta, E. (2014). Experiência no curso – contributo para a qualidade do ensino superior português. *Educação em Questão*, 48*(34)*: 65-85.

Chaleta, E. (2015). Avaliação das concepções de aprendizagem em estudantes do ensino superior – revisão do Inventário de Concepções de Aprendizagem (COLI). Educação – Temas e Problemas, 15 (In press).

Chaleta, E. (2018). Concepções de aprendizagem em estudantes do ensino superior: Revisão do COLI (Conceptions of Learning Inventory). Revista Ensaio: Avaliação e Políticas Públicas em Educação, 2*6(100)*, 684-705. doi:10.1590/S0104-40362018002601302.

Chaleta, E. & Entwistle, N. (2011). Abordagens à aprendizagem no contexto do ensino superior Português (ASSIST). *Educação-Temas e Problemas*, 9: 7-18.

Chaleta, E. & Grácio, L. (2016). Concepções e abordagens – duas dimensões do aprender no Ensino Superior (pp. 223-250). In M. Sobrinho, Ennafaa, R. & E. Chaleta. *La educación superior, el estudiantado y la cultura universitaria*. Valencia: EDITORIAL NEOPATRIA, C.B.

Chaleta, E.; Grácio, L.; Veiga Simão, A.; Ramalho, G.; Rosário, P.; Saraiva, M; Sebastião, L.; Leal, F. & Silva, J. (2013). Orquestrar o aprender no ensino superior - Concepções, abordagens e experiência no curso (pp.11-28). In E. Chaleta (Org.). *Orquestração da aprendizagem no ensino superior*. Mangualde: Pedago

Cohen, J. (1960). A coefficient of agreement for nominal scales. *Educational and Psychological Measurement*, 20: 37-46.

Dahlberg, K. (1992). The Holistic Perspective in Nursing Education. *http://www. ped.gu.se/biorn/diss.sum/ahlberg1.html.*

De Wit, K. & Verhoeven, J. (2001). The higher education policy of the European Union: With or against the member states? In J. Huisman, P. Maassen & G. Neave (Eds.), *Higher education and the Nation State. The international dimension of higher education* (pp. 175-231). Amsterdam: Pergamon.

Duarte, A. (2004). Concepções de aprendizagem em estudantes universitários(as) portugueses(as). Psicologia, 18(1). http://dx.doi.org/10.17575/rpsicol.v18i1.413.

Eklund-Myrskog, G. (1996). Students' ideas of learning. Conceptions, approaches and outcomes in different educational contexts. *http://www.ped.gu.se/biorn/phgraph/civil/graphica/ diss.ab/myrskog.html.*

Entwistle, N. (2009). *Teaching for Understanding at University. Deep Approaches and distinctive Ways of Thinking.* United Kingdon: Palgrave and Macmillan.

Entwistle, N. (2018). Student Learning and Academic Understanding – A Research Perspective with Implications for Teaching. Elsevier: Academic Press.

Entwistle, N., Koséki, B. & Pollitt (1987). Measuring styles of learning and motivation. *European Journal of Psychology of Education,* II, (2): 183-203.

Entwistle, N. & Peterson, E. (2004). Conceptions of learning and knowledge in higher education: Relationships with study behaviour and influences of learning environments. *International Journal of Educational Research, 41,* 407-428.

Esteves, M. (2010). Sentidos da inovação pedagógica no ensino superior. In C. Leite (Org.), *Sentidos da pedagogia no ensino superior* (pp. 45-61). Porto, CIIE.

Fodor, J. (1998). *Concepts*: Where *Cognitive Science Went Wrong*. New Jersey: Rutgers *University*.

Giorgi, A. (1986). A phenomenological analysis of descriptions of concepts of learning obtained from a phenomenography perspective. [*http:// www.ped.gu.se./biorn/oth.abs/girogi.html*]

Hasselgren, B. (1996). Out into Wilderness. Phenomenological Phenomenography. [*http://www.ped.gu.se/bion/wild/wild.html.*]

Holanda, A. (2006). Questões sobre pesquisa qualitativa e pesquisa fenomenológica. *Análise Psicológica, 3* (XXIV), 363-372.

Lakoff, G. & Johnson, M. (1999). Philosophy in the Flesh: The Embodied Mind and its Challenge to Western Thought. New York: Basic Books, 1999.

Limberg, L. (1998). Experiencing information Seeking and Learning: A study of the interaction between two phenomena. [*http://www.ped.gu.se/biorn/phgraph/civil/graphica/diss.su/ limberg.html*].

Makoe, M.; Richardson, J. & Price, L. (2007). Conceptions of learning in adult students embarking on distance education. *Higher Education, 55*(3): 303-320.

Marton, F. (1979). Skill as an aspect of Knowledge. *Journal of Higher Education*, 50: 602-613.

Marton, F. (1981). Phenomenografy: Describing conceptions of the world around us. *Instructional Science,* 10: 177-220.

Marton, F. (1983). Beyond Individual Differences. *Educational Psychology,* 3, *(3, 4)*: 289-303.

Marton, F. (1986). Phenomenografy – A research approach to investigation different understandings of reality. *Journal of Thought.* 21 (3): 28-49.

Marton, F. (1994). Phenomenografy. In T. Husén & T. Neville (Eds.). *The International Encyclopedia of Education* (Vol. 8) (pp. 4424-4429). Postlethwaite: Pergamon.

Marton, F. (1997). Notes on phenomenography – version II. [*http://www.ped.gu.se/biorn/ phgraph/misc/constr/handout2.html*].

Marton, F. (2015). *Necessary conditions of learning*. New York: Routledge.

Marton, F. & Booth, S. (1997). *Learning and awareness.* New Jersey: Lawrence Erlbaum.

Marton, F. & Pong, W. (2005). On the unit of description in phenomenography. *Higher Education Research & Development*, *24*(4): 335-348.

Marton, F. & Säljö, R. (1976a). On qualitative differences in learning: I - Outcome and Processes. *British Journal of Educational Psychology*, 46: 4-11.

Marton, F. & Säljö, R. (1976b). On qualitative differences in learning: II - Outcome as a function of de learner's conception of the task. *British Journal of Educational Psychology*, 46: 115-127.

Marton, F., Dall'Alba, G. & Beaty, E. (1993). Conceptions of learning. *International Journal of Educational Research,* 19: 277-300.

Marton, F., Hounsell, D. & Entwistle, N. (1984). *The experience of learning*. Edinburgh: Scottish Academic Press.

Moustakas, C. (1994). *Phenomenological research methods*. Thousand Oaks: Sage.

Prosser, M., Trigwell, K. & Taylor, P. (1994). A phenomenographic study of academic's conceptions of science learning and teaching. *Learning and Instruction*, 4: 217-232.

Purdie, N., & Hattie, J. (2002). Assessing student's conceptions of learning. *Australian Journal of Educational & Developmental Psychology,* 2: 17-32.

Purdie, N., Hattie, J., & Douglas, G. (1996). Student conceptions of learning and their use of self-regulated learning strategies: A cross-cultural comparison. Journal of Educational Psychology, 88: 87-100.

Ribeiro, J. (2010). *Metodologia de Investigação em Psicologia e Saúde*. Porto: Legis Editora.

Richardson, J. (2000). *Researching Student Learning – approaches to studying in campus-based and Distance Education*. Philadelphia: Open University Press.

Richardson, J. (2007). Mental models of learning in distance education. *British Journal of Educational Psychology,* 77: 253-270.

Runesson, U. (1999). The Pedagogy of Variation: Different Ways of Handling a Mathematical Topic. [*http://www.ped.gu.se/biorn/phgraph/civil/graphica/diss.su/runesson.html*].

Sebastião, l. & Chaleta, E. (2018). A universidade e o futuro: percepção de docentes universitários. *Creativity and Educational Innovation Review*. DOI 10.7203/2CREATIVITY.1.13798.

Svenson, L. & Theman (1983). The Relation Between Categories of Description and an Interview Protocol in a Case of Phenomenographic Research. [*http://www/.ped.gu.se/biorn/phgraph/ misc/constr/svethe83.html*].

Uljens, M. (1996). On the philosophical foundation of phenomenography. [*http://www/.ped.gu.se/biorn/phgraph/misc/constr/phlo.phgr.html*].

Van der Wende, M. & Huisman, J. (2004). Europe. In J. Huisman & M. Van der Wende (Eds.), *On cooperation and competition. National and European policies for the internationalization of higher education* (pp. 17-49). Bonn: Lemmens.

Witte, J. (2006). *Change of degrees and degrees of change. Comparing adaptations of European higher education systems in the context of the Bologna process*. Enschede: CHEPS.