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Exploring the creativity flow in doctoral education: The case of tourism and hospitality management field

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Abstract

Guided by flow theory, this study explores the dimensions that affect doctoral students' creativity flow, particularly in the tourism and hospitality management field. This study is qualitative in approach and a case study in design. The data were analysed using content analysis of semi-structured interviews with 34 doctoral students and 12 academics from Türkiye. Findings identified three interconnected dimensions (i.e., perspectives, conditions, and concerns), which provide a novel framework to better comprehend creative flow as a process inherent to creativity during doctorate education. By doing so, it demonstrates contemporary pedagogy reflects both doctoral students' and academics' viewpoints, which enhances the quality of doctoral education.

Keywords: creativity, doctoral education, doctoral students, academics, tourism and hospitality, Türkiye

1. Introduction

Monitoring and improving the creativity of higher education has always been a primary focus for educators and education institutions (Phi & Clausen, 2021). However, today, it has become more essential since knowledge production is in high demand by national economies to serve industry needs better (Solnet, 2012). This interface is also prevalent in the tourism and hospitality (T&H) industry (Lie et al., 2018), which is well known for being highly dynamic and primarily influenced by ongoing changes in consumer behaviour and firms' operational businesses (Kim & Jeong, 2018). Therefore, well-educated, trained, and motivated T&H professionals play a vital role in the industry's success (Brodin, 2018). In this sense, as current students are the "*change agents*" of the future (Pereira-Moliner & Molina-Azorín, 2023), creativity has become an essential key in higher education (Frick & Brodin, 2020). The main reason for this is the proliferation of studies pointing to the positive contribution of creativity to academic and social outcomes (Gajda et al., 2017; Lewis & Elaver, 2014).

Doctoral creativity refers to "*an epistemological force, driving knowledge creation, application, and change*" (Frick, 2021, p. 145). Nevertheless, some studies indicate that creativity in doctoral education is a mute phenomenon in the current context (Brodin, 2018; Frick & Brodin, 2020). Over and above, latterly, the doctoral programmes fail to endow the original thinkers, who are problem-solvers that meet society's expectations (Bosch, 2018). On the other hand, doctoral students are under tremendous pressure due to systematic conditions, high anxiety and stress of workload, time jams, career insecurity, and mentoring problems (Burford, 2017; Di Pierro, 2012; Hakkarainen et al., 2016).

While existing studies emphasise the need for doctoral students to be creative, practices for doctoral learning differ between countries and disciplines in terms of curriculum, supervision, system, and preferred dissertation format (Hakkarainen et al., 2016). In addition, many existing studies on doctoral students' creativity specifically deal with only one particular learning condition, for example, the ability of faculties/institutions (Brodin & Frick, 2011; McWilliam & Dawson, 2008), supervisors (Frick, 2011; Frick et al., 2014; Thurlow, 2021; Whitelock et al., 2008), extra-curricular activities outside of the programme (Bengtson, 2017), sharing experience through acquiring new knowledge with colleagues (Ouyang et al., 2021), and involving with interdisciplinary research topics (Brodin & Avery, 2014). However, doctoral students' creative journey includes a flow in which they learn how to think critically,

act, write, and speak in a morally sound way, which could lead to a dissertation that is praised by their peers (Brodin & Avery, 2014). Nevertheless, no empirical study has yet attempted to investigate doctoral students' creativity by considering this flow.

Based on the above discussion, this study explores the factors affecting the dynamics of creative flow that explain how it impacts doctoral students' experiences and performance in the T&H field. The proposed framework is based on the synthesised understanding of Csikszentmihalyi's (1996b) theory of creativity that supports the "creative flow"- i.e., conceptualises creativity as a social phenomenon. This study also offers practical implications that can help enhance creativity in doctoral education, not only in the specific case of Türkiye but also in similar contexts.

2. Literature Review

2.1. Creativity

According to Bono (2015, p. 270), "*Creativity is a 'good thing' and no one is really against creativity. Everyone needs creativity, so creativity is everyone's business*". While individuals must have a certain level of personal creativity to produce ideas, it is known that contextual factors such as work environment and past performance are influential in using several creative individuals' innate related skills (Mura & Wijesinghe, 2022). Csikszentmihalyi (1996a) considers creativity as a sociocultural context by stating that it can occur not in individuals' minds but in the interaction between a person's thoughts. Creativity requires personal characteristics, for example, extraordinary associations, insights, knowledge, independence of thought, openness to new experiences, flexibility, persistence, and imagination, along with a psychological and social environment where the original idea is encouraged and valued (Li & Liu, 2016).

Csikszentmihalyi's (1996) theory of creativity introduces the "*creative flow*", within a social phenomenon and considers creativity as "*a sociocultural event consisting of the interaction between people's thoughts*", stating of profound engagement and optimal experience in creative endeavors. It comprises three integral parts (Csikszentmihalyi, 2007, p. 29), including the domain, the field, and the individual's contribution. Specifically considering aims and objectives of the doctoral education, these elements can be further explicated to develop a clearer picture of creative flow in the context of the higher educational field.

The first of these is the domain, which can be considered as "*academic domain*". This domain concerns the beliefs and practices of the scholarly world and academic norms that define student's approach to creativity. The field reflects symbolic rules shared in any information framework. This part is considered the "*subject to be investigated*" in this current study. In this sense, the thesis supervisor has probably a significant gatekeeper function as s/he mediates the student's interaction with the academic community and determines the availability of the resources, feedback, and support. These dynamics, in turn, can enhance or impede the experience of creative flow within the context of the relationship. Finally, individuals decide whether to incorporate new ideas and information into the field. This process is shaped by personal motivation, cognitive abilities, and interactions with both the domain and the field. An integration of the mentioned contextual factors into Csikszentmihalyi's model can help better understand how flow takes place and gets controlled during doctoral education. This approach also provides details about the specific process of the student and it completely emphasizes the academic domain and supervisory relationship of creativity. According to a study by Whitelock et al. (2008), which builds on Csikszentmihalyi's (1996b) theory of creativity, the interaction between a thesis supervisor and their student can significantly enhance both creativity and communication in the research project.

Creativity is also a phenomenon in many different contexts, with increasing recognition of its value in many fields, including technology, business, and entrepreneurship. In addition, the concept of creativity has been extended to higher education with many studies (Kim & Jeong, 2018). Given that scholarly creativity is a form of cognitive thinking that focuses on problem-solving within the domain of scientific inquiry, it is distinguished by its close connection to scientific phenomena, the creation of novel scientific knowledge, and the generation of outcomes that are relevant to the field of science and technology (Liu et al., 2017).

Although it has been suggested that creativity is the basis of the doctoral concept (Trafford & Leshem, 2009), it is a neglected field in higher education, although efforts are made to develop creativity in primary and secondary education (Jeffrey & Craft, 2004). Considering that creativity contributes to critical thinking (Kafri, 2022) and problem-solving including seeking novelty of disciplinary relevance (Baptista et al., 2015); its importance in doctoral education becomes undeniable (Liu et al., 2017). For higher education not to have an ambiguous relationship with creativity, which can be seen as abstract and immeasurable, it should be intertwined with creativity (Gibson, 2010).

2.2. Creativity in higher education of tourism and hospitality

Few studies (e.g., Lugosi & Jameson, 2017; Phi & Clausen, 2021) suggest that systematic and developmentally organised learning experiences that encourage creativity are lacking during the doctoral period. A study findings of Assen et al. (2023) also noted that the industry partners are more satisfied with the students' thinking and creativity compared to the educators, and the students' higher-order thinking differs based on education or their experiences in the hospitality industry. In addition, Lovitts (2007) pointed out the lack of explicit expectations and feedback on creativity in doctoral education. PhD is the beginning of the process of becoming a responsible scholar, and the identification of creativity with the concepts of innovation, cooperation, problem-solving, ethical behaviour, interpersonal communication, interdisciplinary understanding, and entrepreneurship intertwines creativity and doctorate (Gomez; 2024; Lewis & Elaver, 2014). ElSaid and Fuentes Fuentes (2019) found that entrepreneurial attitudes among T&H students are positively influenced by creative thinking and are influenced by key learning condition factors such as education, university environment, society, and family.

Moreover, many studies, in general, examine the learning conditions of doctoral students. Reasons such as political and economic agendas (Enders & de Weert 2009), the supervisor's ability to meet the student's expectations (Frick et al., 2014; Han & Abdrahim, 2023; Zhang et al., 2022), the ability to make independent decisions in the educational process (Brodin, 2016; Frick, 2011; Lovitts, 2007) have been associated with creativity in the doctoral process. Whitelock et al. (2008) attributed doctoral students' creativity to a collaborative supervisory relationship that is far from didactic. In addition to these arguments, McWilliam and Dawson (2008) contend that education can support students' creativity. Gross and Lashley (2014) also noted that T&H curricula are overly vocational and fail to fulfill the imperative of developing responsible citizens in terms of required competencies in the field such as cultural awareness, leadership, creativity, critical thinking, and global perspectives.

Students need to have a certain level of personal creativity to produce creative ideas; hence, Lovitts' (2007) work positions originality as the final result of the doctoral process. Within the realm of doctorate education, the activities including the identification and elucidation of a research topic, the selection of a suitable methodology for researching the observed subject, the gathering and analysis of data, as well as the composition of research proposals and publications, together constitute an integral component of the creative process

(Heath & Tynan, 2010). Doctoral work is creative in nature, as it broadens the knowledge boundaries of a particular discipline. A study by Li and Liu (2018) stated that knowledge diversity positively influences creativity in tourism and hospitality scholars' creativity. According to Frick (2021), doctoral pedagogy covers knowers (supervisors and students), the known, and the unknown, and the rules of engagement under which these components combine to generate knowledge, the ultimate goal of a doctorate, with creativity as the epistemological force driving this process. In this regard, Liu (2017) indicates that the frequency of interaction between supervisors and students is crucial for enhancing creativity, as it fosters both knowledge sharing and a cooperative culture within the learning environment.

The factors affecting creativity are likely to change in the different education systems of each countries (Sigala & Baum, 2003). This study was carried out in Türkiye, and doctoral education in Türkiye is completed in a minimum of four years. Each university has different student admission and graduation requirements, supervisory appointment processes, and expectations from doctoral students. However, the process of epistemic creation necessitates creativity as an underlying process (Baptista et al. 2015); thus, the primary purpose of this study is to determine what affects the creativity of doctoral students studying in the T&H field.

3. Methods

3.1. Research design

A qualitative case study methodology is adopted in this study to explore the perspectives of doctoral students and academics about creativity flow in doctoral education. This approach is regarded as favourable for exploring complex social phenomena (Yin, 2014). To do this, the study also employs a case study design to explore creativity fellow of doctoral education in the T&H field. The case study approach allows for an in-depth investigation of existing patterns, - e.g. the interaction between supervisors and students, and the effectiveness of a specific intervention within its real-life context.

3.2. Sampling and data collection

Based on existing studies (Brodin, 2018; Brodin & Avery, 2018; Burford, 2017; Frick, 2012, 2021; Frick & Brodin, 2020; Frick et al., 2014; Gajda et al., 2017; Thurlow, 2021; Whitelock et al., 2008; Zacher & Johnson, 2015), 15 semi-structured questions were developed and pilot tested with an expert-paneled of two academics in T&H for clarity, accordingly, resulting in

only minor wording corrections. Then, pilot interviews were held with five participants to assess the suitability of the questions, which resulted in further modifications (Appendix A).

Qualitative data were collected from 34 doctoral students and 12 academics from the field of T&H because its quick growth makes it a vital industry for sectoral and academic growth; thereby, the industry needs creative researchers as much as it needs competent representatives. A combination of snowball and purposive sampling was used by taking research objectives into account, increasing the transferability of the findings. The snowball sampling method was used to reach doctoral students due to the difficulty of reaching all individuals and terminated when data saturation was reached after the 34th participant (Braun & Clarke, 2019).

For the other group-i.e., academics, it was deemed appropriate to use the purposeful sampling method by defining some screening criteria, such as having more than ten years of experience, publishing papers in international journals indexed in Scopus and WoS databases, and being the director of funded academic projects. Following the recommendations of Guest et al. (2006) about sample size for relatively homogeneous groups, it was considered that reaching 12 participants in total would be sufficient for this group with homogeneous features. This implies that any additional participants would likely yield codes that have already been identified. Appendices B and C include the profiles of participants. All interviews were conducted in December 2023.

The authors emailed the potential respondents, which explained the study goal, requested an interview appointment, and got terms for interviews. The duration of individual interviews varied between 32-58 minutes for students and 43-67 minutes for academics. Before commencing the interviews, necessary permissions were acquired to record the respondent's voices and transcribed verbatim for the subsequent analysis.

3.3. Data analysis

The analytic procedure followed the directed content analysis (Hsieh & Shannon, 2005) by combining both inductive (the existing items) and deductive (the prior literature) approaches to generate a more nuanced categorization of qualitative data (Gummesson, 2000). Initially, the authors employed an inductive approach to identify and code the raw data gathered from doctoral students and academics, uncovering emergent themes and patterns without preconceived notions. This enabled authors to obtain initial classification from the responses directly provided by the participants. Concurrently, authors used a deductive approach in their

studies on the basis of advanced literature reviews and application of related theoretical concepts (i.e., Csikszentmihalyi, 1996a, b, creative flow). The obtained results were optimized and the validity of primary theoretically defined categories was verified by the authors. This two-phase approach allowed the authors to create enhanced categorizations compared to the initial study, leading to three over-arching themes, 10 subthemes, and 46 open codes, see Fig 1. In the given context, the letter "S" is used to denote a doctoral student, while the letter "A" is used to represent an academician.

(Figure 1 here)

Data were analysed using content analysis by two authors independently. One author used the Nvivo software programme, and the other applied manual coding to strengthen the reliability of the findings. In the study, both NVivo software and manual coding were employed to ensure a comprehensive and robust analysis of the data. NVivo facilitated a systematic coding process and efficient data management, while manual coding involved hands-on thematic identification. These two methods required integration to compare the codes and themes from both methods to arrive at an agreement from the two methods in case they differed. To increase inter-observer reliability and validity of the results, the codes and themes were also compared between the qualitative data analysis software and manual coding, thus enhancing the reliability and validity of the results. Despite the different approaches, alignment in the core processes for identifying codes and themes was maintained, allowing for a systematic and rigorous analysis of the data. The combination of NVivo's structured framework and the flexible, manual coding approach enabled effective validation of the findings.

Content analysis has three phases in general: reduction, display, and conclusion verification (Miles & Huberman, 1994). Therefore, initially, the raw data underwent a filtration process, whereby comments made by participants that aligned with the specific aims of the research were shared to enhance the confirmability of the outcomes (Elo & Kyngas, 2007). The filtration process comprised three steps (i.e., open coding, axial coding, and selective coding) to ensure dependability, and confirmability (Strauss & Corbin, 1990): (a) removing irrelevant or incomplete initial codes among independently coded basic themes by authors, (b) selecting key sub-dimensions based on inductive and deductive enquiries (axial coding; see Table 1), and (c) categorisation of sub-dimensions to group data into meaningful dimensions (selective coding; see Table 2). During the final step, two authors with qualitative research expertise independently identified and developed categories, codes, and sub-dimensions (see Table 3). This process enriched the analysis as it eliminated the distorting themes that could compromise

the quality of gathered information as well as the outcomes of the investigation of the set research questions. The elimination of irrelevant data improved the validity of the results because only the most relevant data was used to make the analysis.

(Table 1 Here)

(Table 2 Here)

Following the authors' deliberation on the identified categories, codes, and sub-dimensions, the results were collectively reviewed and ultimately concluded. The terms such as 'positive,' 'negative,' 'neutral,' 'yes,' and 'no' were also employed as coding labels to categorize responses based on sentiment or binary classification. While these terms may appear simplistic, they were essential for distinguishing between different types of responses in our analysis. Based on the kappa analysis, a significant level of agreement ($\kappa = 0.85$) was observed between the two researchers. Kappa analysis is a statistical technique of inter-rater reliability assessment applied for analysing the degree of coders' agreement when completing categorical data beyond chance. In qualitative research, inter-coder reliability proves very useful, by affirming that different coders use the categories in a similar manner, thus instilling confidence in the studies' conclusions (Landis & Koch, 1977).

(Table 3 here)

4. Findings and discussion

The findings centered on both student practices and supervisory observations in understanding creative flow within doctoral education. By linking these findings to Csikszentmihalyi's theory, the study offers insights into how flow states can be fostered and recognized in the doctoral research process. This focus contributes to a deeper understanding of the creative flow inherent to creativity as discussed by Csikszentmihalyi. In doing so, it moves beyond previous studies that focus on creative flow as a process inherent to creativity by focusing on 'creative flow' in terms of what doctoral students experience and what supervisors observe in students to achieve a state of flow.

4.1. Perspectives

4.1.1. Doctoral students

Findings reveal that creative flow is present in the various patterns and immersive research activities that include the intensity of operations, absorbed research activities, and problem-solving strategies among doctoral students. The key practices consist of setting clear goals,

maintaining a balance between challenge and skill, and engaging in reflective practices. These practices are in line with Csikszentmihalyi's (1996a, b) creativity flow theory stressing the academic domain in flow.

4.1.1.1. Creativity perceptions of doctoral students

The sub-dimension of "perception" was created based on the codes of innovativeness, originality, dissimilarity, usefulness, and awareness. For example, **S3** mentioned: *"Creativity is acting with more original thought structures or in a way to think more innovatively ..."* Many of the student participants also highlighted the importance of research in solving such social problems. In this regard, **S13**: *"In general, these are studies in which the aim of providing a benefit to society is at the forefront ..."* These findings support the notion of prior investigations (e.g., Alt et al., 2023; Cropley, 2005; Li & Liu, 2016; Mura & Wijesinghe, 2022; Tsai et al., 2015), regarding the relationship between creativity and the social environment is reciprocal since the environment promotes creativity, directs innovative production, and changes the atmosphere.

4.1.1.2. Creativity hindrances according to doctoral students

Creativity is a process that involves real-time collaboration between people who are dependent on each other and collaboratively contribute to a common goal to transform their space (Miell & Littleton, 2004). According to previous studies (e.g., Holley & Caldwell, 2012), the quality of the doctorate education experience is directly influenced by the interaction between the doctoral student and the faculty member. Harmoniously, most participants frequently noted the role of their intrusive supervisors as a hindrance to being more creative. For example; **S1**: *"The first thing is to get the people we will publish with or our advisor to accept the creative idea about the subject we will research, that is, to convince them."* **S8**: *"As the advisors care about the quantity of publications rather than the quality, we write superficially instead of being creative."* **S9**: *"There is no master-apprentice (guider-disciple) relationship. Any creative subject striking to the mind ceases to exist as it is not within the scope of the advisor's field of expertise."* **S31**: *"Advisor's expectations and lack of openness to innovation impede creativity."*

A few student participants also underscored the importance of the social environment in the academy. These findings- albeit general in nature- align with existing studies (e.g., Cropley, 2005; Tsai et al., 2015), which identify that the academic environment is a vital element for becoming creative. What is different in this study's findings is that the creativity work of T&H doctoral students is also affected by other factors (i.e., heavy workload, family

life) that constrain their time. Interestingly, one of the research assistant participants, **S2**, clarified those hindrances by sharing his work-life experience as follows:

"The workload in the work environment can be seen as a hindrance. [...] Secondly, [...] if there is an environment that is prone to chatting too much, this is also a hindrance. Even though you are trying to work, your colleague may come to your room every half hour and want to drink tea; s/he leaves and someone else comes an hour later. Thirdly, another hindrance may be family life. [...], when we look at it academically, it is a factor that prevents working outside of work."

Financial inadequacies and difficulty in accessing resources were also noted as one of the hindrances by many participants. For example, **S21** underscored the challenge of not being funded for their research by national or international institutions: *"TUBITAK [Scientific and Technological Research Council of Türkiye] and other EU projects do not receive much support, especially in the social sciences. Financial obstacles like these hinder creativity."* Apart from these, some participants noted the vital role of having a free thought environment and highly intrusive reviewers. This is highlighted by the following response:

"Perhaps you are trying to come up with something new idea for the first time, but there are some obstacles, such as the editors and referees asking for backing your ideas with references." (S26)

4.1.1.3. Strategies that doctoral students done for creativity

Although creativity is not emphasised enough in research on postgraduate students (Brodin, 2018), it is a concept involved in the writing and research process, from choosing a research focus and methodology to picking research design and knowledge dissemination methods (Baptista et al., 2015; Frick, 2012; Thurlow et al., 2017). Therefore, doctoral students were asked in which situations they found their work more creative, which resulted in the sub-dimension "strategies done for creativity", emerging from three codes, including finding the gap in the literature, trying new methods, and finding realistic solutions. **S9** mentioned:

"Frankly, we sometimes gather together with our friends at university and think about how valuable is what we do, and how much benefit do we provide to whom? We don't intend to do something new or something that no one else has done, but the main purpose of what we do is to be useful to people in the industry." (S9)

4.1.1.4. Strategies that doctoral students do for creativity

In response to the questions about strategies for improving creativity, a few students mentioned several factors that contribute to fostering creativity, including publishing more, being independent, open to creativity, following the sector, improving language abilities, and thinking critically. In addition, only three respondents acknowledged the significance of receiving accurate guidance from supervisors, as participant **S19** responded, *"We can actually do this only with the guidance of our supervisors..."* Particularly, doing a lot of reading and increasing financial opportunities; however, were noted as the most important factors for creativity. **S14** and **S21** mentioned the following, respectively:

"It is necessary to do a lot reading [...] and present works that will produce real solutions to real problems." (S14)

"I think that support such as for quantitative or qualitative software analysis programmes used in research should be provided" (S21)

Participants also highlighted the role of attending congresses, courses, seminars, and trainings. For example, **S17** explained: *"I think it would be to our benefit to make seminars and training that encourage personal development compulsory."*

4.1.2. Academics

Findings highlighted various indications of flow according to observations by academics, including productivity, the student's interest, and systematic problems in the field. The qualitative data revealed that flow is positively related to the frequency of feedback requests, motivation, and the use of new multidisciplinary ideas in students' work as reported by supervisors. These observations align with the conceptual framework, highlighting how the academic culture (i.e., domain) is facilitating creative flow.

4.1.2.1. Creativity perception of academics

Innovativeness, originality, difference, usefulness, and style were created by statements of academics regarding the sub-dimension "perception". Four of these emerging codes are exactly the same created based on the answers given by doctoral students; only one of them is different, i.e., styling. This means that students and academics largely perceive and define creativity in the same way. The academics, who define creativity as 'style', expressed:

"I consider creativity a style. It is the researcher's internalisation of his/her work and adding style to it. It is how one deviates the research design from the standard."
(A6)

It can be assumed that creativity is an intrinsic element of research and is intertwined with doctoral participation and completion (Frick, 2012; Pare, 2017). Few students can see their PhD work as creative (Thurlow et al., 2017); however, successful researchers must constantly adapt, revise, adjust, and judge their approach and content based on new meanings and understandings that emerge during the research process (Puryear, 2014). Two academics, however, mentioned that there was no such thing as creativity. Of these; **A2**: *"I do not find academic studies creative or identical, similar works are produced."* Likewise, **A4**: *"I do not think creativity is actually possible in the academic community in Türkiye. Turkish academia has not yet reached that stage in social sciences".*

4.1.2.2. Creativity hindrances according to academics

Academics were also asked what factors hinder the creativity of doctoral students. Comparing what the student participants stated, academics stated that impetuosity and system were distinctive factors affecting students' creativity. According to academic participants, being impetuous was the most important issue for the lack of creativity among doctoral students. **A1** expressed: *"To be creative and reflect this in your work, you need to think carefully and spend time. The most important reason is haste."*

In accordance with existing studies (e.g., Burford, 2017; Hakkarainen et al., 2016), some of the academic participants also highlighted the importance of the current system. This aligns with McWilliam and Dawson's (2008) study that notes the importance of a creative environment in creating a psychologically safe climate compatible with competitive challenges and risks. This is highlighted by the response of **A2**:

"The current system itself hinders creativity. Science is done in a free environment. The academic system does not provide a free environment. There are certain patterns, and these patterns cannot be deviated from. When this happens, creativity is not possible." (A2)

Other creativity hindrances mentioned by academics include lack of experience, consultant disability, financial difficulties, lack of foreign language skills, and lack of knowledge are seen as not travelling and indifferent. Regarding the supervisor's obstacle, **A3** headed: *"When s/he [student] finds a creative topic, s/he may think that s/he cannot get his/her supervisor to accept it."* Time limits and financial challenges were evaluated jointly, and **A9** concluded that *"most students have to work outside because they do not have a job position, and the two do not work together."* **A11**, who criticised the students for not travelling,

mentioned, *"Since tourism is an applied science, students need to travel a lot in order to do creative work."*

4.1.2.3. Strategies that doctoral students done for creativity according to academics

Compared to student participants, academic participants also noted the role of having a multidisciplinary approach to creativity. This is further emphasised by the response of **A4**:

"[...] one of my students from the department of gastronomy and culinary arts is preparing a thesis using neuroscience. By using the eye tracking method, it wants to make measurements such as which of the plates it has prepared, which of the plates the consumer's eyes are drawn to first, and how many minutes it takes." (A4)

4.1.2.4. Strategies that doctoral students to do for creativity according to academics

Academic participants were also asked what doctoral students should do to be more creative. The most frequent expression was "doing a lot of reading outside the field". Other expressions include observing, developing imagination, supervisory support, attending congresses, and being willing/curious. This is further highlighted by the response of **A8**:

"[...] If a thesis or an article does not serve a social or sectoral problem, there is no point in being creative. Private sector-university cooperation is constantly emphasised. If it is not synchronised, there is a problem."

Compared to all other academic participants, **A12**, emphasised supervisory support and willingness at the same time: *"Creativity is not something external; it is internal. If the student has a desire, enthusiasm, or passion, the supervisor can bring out that gem; otherwise, there is nothing that can be done."*

4.2. Conditions

4.2.1. Doctoral students

The supervisory relationship is found central to creative processes for doctoral students, though perfunctory supervisors can cultivate creative ideas, while prescriptive supervisors suppress them, evidencing the field's influence. Journal impact factors also illustrate this dynamic: as for creativity, numerous students claim that aiming at high-impact journals can be both stimulating and limiting due to the patterns' restrictive nature. This influence is proven via calls for papers, which students report prompting excitement and pressure, as well as how the symbolic norms around publishing possibilities affect students' creative functioning. The importance of courses and seminars in this regard demonstrates how educational frameworks

permit and develop the field's symbolic laws; students actively question the courses' socioeconomic significance to creative flow, indicating that individual participation is essential.

4.2.1.1. Supervisor

Although it is emphasised that the effect of the doctoral thesis supervisors on students' creativity is generally positive (41.1%), the percentage of students who argue that the supervisor harms their creativity is also mentioned (29.4%). Our qualitative data revealed that the harmony in the master-apprentice relationship is vital to the creativity of students. This is further emphasised by **S1**:

"It can have a suppressing effect on your creativity in some subjects, and sometimes this subject can have different and original interpretations, and it has both positive and negative effects and contributions."

4.2.1.2. Journals' impact factors

Our qualitative data reveals that doctoral students hold diverse opinions about journal impact factors. Their views are influenced by a combination of career goals, field-specific practices, awareness of the limitations of metrics, and the evolving landscape of scholarly communication. Some of the student participants expressions regarding the sub-theme of "journals' impact factors" are as follows;

"It encourages me; for example, there is a journal called Annals of Tourism Research. All the works in that journal are creative. Annals is a very prominent journal. Making a publication here would encourage me." (S3)

"I think journals with a high impact factor have a certain pattern. Therefore, I think that instead of being more creative, you are put into a certain mould." (S27)

4.2.1.3. Call for papers

Doctoral students have diverse perspectives on calls for papers, which include a range of feelings from excitement about the opportunity they provide to worries about problems such as excessive workload, the quality of publications, and inclusiveness. Researchers must thoroughly assess Call for Papers (CFPs) and choose platforms that are in line with their academic objectives and principles. Some of the statements of doctoral students who argue that congress calls- in general-negatively affect creativity regarding the sub-dimension of "call for papers" are as follows:

"They say we have a congress very soon and invite you to it. Your supervisor or friends say, Let's do something there. Maybe you don't want to work, but you may find yourself doing that work. There is another work going on in your mind, but you are postponing it." (S10)

4.2.1.4. Courses and seminars

While the majority (32 students) find the courses and seminars held in universities useful, only two students think that they have no effect on creativity. This is further highlighted by the following response:

"Of course, these courses will give you a certain perspective, but I do not think that writing and creativity are something that can be taught. [...] Of course, it contributes, but I do not think that direct education will provide such creativity."
(S4)

4.2.2. Academics

Academics' perspectives align with the findings by students in this regard, as they recognize the dual nature of these symbolic rules. Academics provide guidance that aligns with disciplinary norms and student needs to enhance creativity while conflicting views on impact factors reflect the tension between maintaining high standards and supporting creative freedom. Academics also appreciate CFPs valuable since they provide new insights, although they recognise the challenges they deliver, such as budgetary limits. Finally, while courses and seminars are respected, their efficiency in directly promoting creativity is debatable, emphasising the importance of aligning educational frameworks with individual creative drives. Together, these approaches highlight how symbolic conventions within the academic field impact, and sometimes constrain, the creative flow of both students and academics.

4.2.2.1. Supervisor

Academic participants were also asked whether they contributed to their students' creativity and how these guidelines affected their creativity. While most of them (8 academic advisors) stated that they positively influenced the students in terms of creativity, two of them thought that they influenced them both positively and negatively. Only one participant stated that he influenced them negatively. One consultant left this question unanswered. The academics further stated that they gave students guidance on how to think analytically, write critically, access resources and that they positively affected their creativity. This is further emphasised

by the response of **A1**: *"Creativity is not something that can emerge with the guidance of a supervisor. It should be up to the student himself."*

4.2.2.2. Journals' impact factors

While impact factors continue to play a cornerstone role in academic publishing (Ertas et al., 2023), there is a nuanced range of opinions among our academic participants. Many participants recognize their limitations but may still consider them as one of several factors when making decisions about where to publish or how to assess the impact of their work. Academic participants were divided into two groups regarding the impact of journals' impact factors on creativity. For instance, **A10**:

"In order to publish in a journal such as Tourism Management, it is necessary to either find a very original topic or approach a well-known topic with a very original method. This also improves them."

Another participant emphasized the fact that journals with a high impact factor can help students' creativity by providing high-quality feedback. Existing literature indicates that scholarly publishing (Ertaş et al., 2023) and the significance of acceptance from journals with high impacts (Babor et al., 2017) are some of the primary purposes of T&H researchers. However, these previous studies failed to establish their relationship with creative flow. **A3** mentioned:

"If the impact factor of the journal is too high, the student may be afraid of it and may not attempt it. On the other hand, it encourages the student because the feedback given by those journals is very valuable."

4.2.2.3. Call for papers

Academic participants most frequently evaluated the impact of journal and congress calls on creativity positively. For example, **A10** evaluated the congress calls positively while mentioning the financial difficulties as an obstacle:

"Attending congresses held on different subjects gives them [doctoral students] new perspectives. It is very important to go there and learn new things from the leading scholars in the field. But at the point we have reached today, as well as the students, congresses have become costly even for us."

4.2.2.4. Courses and seminars

Academics find the courses and seminars held in schools mostly useful in terms of creativity, however, **A1** and **A12** argued that this is also related to the student's internal motivation and

willingness, while **A9** finds it more useful to attend courses and seminars held abroad. While **A8** finds it partially useful, he states that such courses are not given abroad, but quality publications are published, and he does not find it right to hide behind this. **A2**, on the other hand, did not think that creativity is something that could be revealed through courses and seminars and stated:

"I don't think courses and seminars have anything to do with creativity. Creativity is something that comes from within, like inspiration; it is not something that can be achieved by imitating someone from the outside or by receiving some training."

4.3. Concerns

4.3.1. PhD students

In the proposed framework by Csikszentmihalyi, the domain focuses on the role of self-organization, skills, and connections between individuals in the creative flow. Specific challenges recognized by doctoral students include academic scoring and “ambiguphobia” – the fear of ambiguity as major factors that hinder creativity. The pressure of acquiring points as emphasized by students who felt compelled to meet course expectations hampers creativity by constraining it. This forces individuals to conform to overall academic standards that may limit creativity and innovation hence hindering the development of new knowledge. Likewise, concerns of misinterpretation or rejection of the perceived irrelevance of the topic can inhibit students from selecting creative subjects. Such self-censorship based on concerns over how the concept will be received, is evidence that the creativities are made subject to outer pressures, as well as self-imposed concerns. These concerns highlight the need for a learning environment that fosters exploration and embraces ideas and contributions from students without prejudice, allowing students to disregard these fears and operate within their potential.

4.3.1.1. Academic scoring

The majority of students stated that they were worried about collecting points and that this situation hindered their creativity. For instance, **S14** confessed a fact that troubled young researchers:

"Every term, a different teacher requests a publication. Whatever the subject of the course is, we prepare one publication within that scope. This limits us greatly and limits our creativity." (S14)

4.3.1.2. Ambiguphobia

Our qualitative data revealed that most student participants seem to have the self-confidence to not be misunderstood. However, one of the students who stated his fear of not being understood mentioned as follows;

"I have a concern that my topic will not be understood, that it will seem absurd, or that it will be deemed worthless. It would be discouraging for me if there was a perception that my work was being laughed at, that it was not perceived as creative, and that it was thought of as simple." (S29)

4.3.2. Academics

In an academic context, another important point of Csikszentmihalyi's notion of individual contribution is the relationship between intrinsic motivation and an academic climate. The findings reveal a nuanced perspective: As academics note, apprehensions regarding academic scoring and the anxieties over not being understood do indeed pose significant obstacles to the creativity of a doctoral student, they also relate these fears to the cultural and institutional parameters. The pressure of gaining points and concerns regarding misunderstandings in the communication process also aligns with the points mentioned by the students, proving that these problems are not only related to the learners themselves but have more social aspects. Academic participants also admit that students might be afraid to present unique ideas which they blame on cultural and authoritative barriers restricting creativity and new knowledge accusation. This co-constructed idea implies acknowledging that overcoming these fears must involve both encouragement at the personal level and societal reforms that foster creativity and innovation. Constant encouragement that originality is valued and hazard-free constructive feedback will enable academics to guide students through these issues and improve creative outputs.

4.3.2.1. Academic scoring

The qualitative data revealed that the factors that hinder creativity are the anxiety of gaining points and the fear of not being understood. The majority (67%) of academics thought that, in line with the views of doctoral students, there is concern about collecting points. However, while students state that they are not afraid of not being understood, the majority of academic participants argue that doctoral students have a fear of not being understood. **A3**, one of the academics who thought that this situation was related to the student himself:

"I had a student who created a virtual destination with virtual glasses using software. He did this by getting it accepted as a project [...]. He had a hard time,

and frankly, he had a hard time with me too. He didn't rush anything, because he wanted to create something good. Another student of mine wanted to do very ordinary research by changing only the destination with well-known variables. He was in a hurry to finish and graduate as soon as possible. "

4.3.2.2. Ambigophobia

Most academics (58%) mentioned that doctoral students may be afraid of not being able to express it or get it accepted when they find a creative topic. **A1**, who found this quite natural, stated: *"This is a normal thing. This happens with senior researchers too. The task of the supervisors is to show how to overcome that fear [...]"* On the other hand, **A5**, **A8**, and **A9** attribute this fear to culture, and **A9** describes this phenomenon: *"This is something related to culture. This is a common situation in places where hierarchy is intense. We have this in our country."*

5. Conclusion

From a pedagogical standpoint, this study presents a novel framework that enhances the comprehension of "creative flow" as a psychological state linked to creativity during doctoral education, incorporating both academic and doctoral students' perspectives. To the best of our knowledge, this is the first attempt to explore the perceptions of doctoral students and academics with one voice, enriching the existing literature on creativity in doctoral education. In addition, by expanding Csikszentmihaly's (1996a,b) theory of creativity flow, this study constructs a more nuanced view of doctoral education as a dynamic interplay among three interconnected factors: perspectives, conditions, and concerns. Specifically, perspectives relate to the academic culture that contains current domains; conditions involve the notion that people in academia should consider some symbolic rules for choosing subjects to be investigated; and concerns are about the recognition and validation of creativity. This revised approach offers a comprehensive view of how creative flow operates within doctoral research, highlighting how these factors collectively influence the doctoral experience. The study thus advances beyond previous research by integrating these elements into a coherent framework, differing from existing studies (Brodin, 2018; Brodin & Frick, 2011; Frick, 2012, 2021; Frick & Brodin, 2020; Frick et al., 2014; Gajda et al., 2017; Thurlow, 2021; Zacher & Johnson, 2015) in its application of Csikszentmihalyi's theory to the specific context of doctoral education in the T&H field.

5.1. Theoretical implications

The proposed framework is designed to explore the interplay between creative flow and doctoral education within the context of T&H management. By doing so, it integrates various environmental factors, such as education, societal influences, and family support into a cohesive model, highlighting how these factors contribute to achieving optimal creative states, as conceptualized by Csikszentmihalyi's theory of flow. The framework is characterized by its multidimensional approach, incorporating both psychological (i.e., domain) and contextual factors (i.e., field) to incorporate new ideas and information into the field (i.e., individual contribution). It features a structured model that delineates how different environmental factors influence the relationship between creative thinking and doctoral education, providing a clearer connection between our results and the established theoretical concept of the theory of creativity flow. This framework is also highly relevant to the T&H field as it provides a novel perspective on enhancing interactional skills and creativity among students and academics in order to promote knowledge sharing and cultivate a collaborative culture within the learning environment (Liu, 2017). By addressing key external factors, it can offer practical insights for educators and policymakers aiming to foster creativity (Assen et al., 2023), entrepreneurship (ElSaid & Fuentes Fuentes, 2019), and academic mindset in this industry (Gross & Lashley, 2014).

Moreover, according to the results, firstly, academics and doctoral students share almost the same perception of academic creativity. Compared to student participants, academic participants emphasised the importance of style in creativity, which creates meaningful work that gives pleasure (Yoo, 2019). The result also partially confirms existing studies in terms of re-identifying such limitations that hinder academia,-e.g. financial inadequacies, the social environment in the academy, or a lack of knowledge (e.g., Burford, 2017; please cite more recent studies). However, most of the student participants highlighted the role of supervision as a hindrance, while academic participants noted the impetuosity of students and the unpropority of the current system as the most important hindrances to doctoral creativity. Furthermore, both groups of participants reached almost a consensus about the strategies implemented for enhancing creativity by students. Notwithstanding, compared to students, academic participants only noted the role of having a multidisciplinary research approach, confirming the study of Brodin and Avery (2014). For strategies related to fostering creativity, both groups mostly indicate the significance of doing a tutam of reading outside the field. A few academic participants also elaborated on the role of supervisory support for a better strategy in the creativity of academia.

Secondly, both groups discuss some conditions (i.e., supervisor, journal impact factors, call for papers, courses, and seminars) that are effective within the creativity of the doctoral flow. Aligning with prior studies (e.g., Frick et al., 2014; Whitelock et al., 2008; Zacher & Johnson, 2015), our results also confirmed the role of supervisory relationships in doctoral students creativity. The findings are also consistent with several previous studies (e.g., Babor et al., 2017; Ertaş et al., 2023) that note the importance of the right journal for being successful in publishing. The results showed that student participants had a more positive attitude towards targeting journals with high-impact factors than academic participants because they had some concerns about collecting scores. However, compared to student participants, academic participants had a greater tendency to point out the importance of the call for papers by journals and publishing houses.

The last key findings of this study are the academic scoring and ambigophobia of students, which are vital concerns against being innovative. Because, when it comes to promotions, tenures, and incentives, universities are generally prone to take into account certain well-recognized and reputable journals and publishing houses (Babor, 2017). Furthermore, the fierce competition among the institutions to appreciate a higher position in international rankings might be another occasion that can create concern about ambigophobia.

5.2. Practical implications

The qualitative data demonstrated that few academic participants stressed the importance of developing a writing style for doctoral creativity. Therefore, responsible academic authorities should contemplate how they can allow students to develop a style. In this sense, it should be important to increase the number of academic writing seminars to better adopt the reporting language. In addition, many studies today draw attention to the role of artificial intelligence (AI) and robot teaching assistants in academia (Ali & OpenAI, 2023; Hsu, 2018). Such IA writing technologies as Grammarly, QuillBot, or ChatGBT might help students develop an academic style at the beginning stage.

As supporting existing studies (e.g., Hakkarainen et al., 2016; Holley & Caldwell, 2012), findings revealed some challenges against being creative within doctoral education. The present circumstances pose a significant hindrance to the advancement of educated people throughout society. It is, therefore, crucial to take into account the academic and sectoral implications of enhancing effectiveness and efficiency in the doctoral education flow.

The Lisbon Declaration (European Universities Association, 2007) establishes a significant connection between university research and creativity within Europe, which underscores the crucial role of universities in fostering cultural, social, and technological innovation. Following the results of Frick's (2021) work, our study has also found several strategic issues that fit with the academic culture, which can help make the current academic domain stronger. For instance, to enable students to do a lot of reading, offering diverse academic sources of publications can be a wise strategy. Thus, universities can make discount agreements with publishing houses and companies for a certain number of downloads or sharing of written materials. Additionally, both participant groups frequently highlighted the financial inadequacies. Responsible authorities, therefore, should pay more attention to supporting doctoral students with bursaries. Another strategy might be possible to project the doctoral thesis with some budgets through the project unit departments of universities. This project budget must definitely include congress participation support for students to share their studies and get a network in their scholarly area.

The current study also revealed four factors affecting the creativity of students, namely supervisor, journals' impact factors, call for papers, and course/seminars. Doing so, results confirm that the harmony between supervisor and student relation is essential for pedagogical exchange as a form of value creation rather than knowledge transmission (McWilliam et al., 2008), because supervisors are risk mitigators who are mediating demands between society, industry, discipline(s), institutions and doctoral candidates (Frick, 2021; Han & Abdrahim, 2023). Thus, to ensure a cognitive apprenticeship, supervisors should lead their students to be more involved in all the phases of supervisors' own research, including conceptualisation, data-collection, analysis, and reporting.

Our qualitative analysis further demonstrated that there is not a strict consensus about the journal's impact factors and calls for papers as effective factors for students' creativity. However, it is well-known that doctorate education includes a synthesis of practice, theory, and methodology. In alignment with prior studies (Liu et al., 2017; McWilliam & Dawson, 2008), we anticipate that the potential lack of co-competition course content can impede the complete acquisition of benefits associated with T&H education. Therefore, courses/seminars should be used to teach research methodologies for enhancing academic content. Because the mastery of statistical methods employed in academic research is crucial for students, it instills confidence in their ability to execute statistically sound applications. This study, therefore, agrees with the suggestion of prior studies (e.g., Ramirez et al., 2012) regarding this

proficiency, which can facilitate the undertaking of more valuable and significant studies within the academic community.

Lastly, the results show that the continuous publish-or-perish trend pressures the students in terms of collecting academic points, which generates concern (Ertaş et al., 2023). Therefore, responsible authorities should consider this issue and pay more attention to the quality of publications rather than the quantity. In this regard, publishing in prestigious journals must have better academic points in academic promotions and tenures compared to publishing somewhere not indexed in international research databases. On the other hand, although the majority of student participants did not confidently express fear of not being understood in academia-.i.e., ambigophobia, most academic participants found it appropriate to clarify this issue.

5.3. Limitations and future research directions

The limitations of this research must be acknowledged. Firstly, this study is restricted to academicians and doctoral students in Türkiye, limiting the generalizability of its findings. Secondly, as a result of the qualitative nature of the research, there was a lack of prioritisation of the identified factors; in turn, the significance of the results should potentially be validated by employing quantitative methods. Finally, it should be noted that the sample recruited in this study inadvertently conveyed a bias towards male participation, which might be attributed to the prevailing socio-demographic gender imbalance within the academia of Türkiye.

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Table 1. An example of coding

A interview by student (extracted from the data)	Open coding
I can list the most important hinderence to creativity as follows. The first is usually to convince the colleagues or supervisors we will be publishing with about the value and relevance of the research topic. In other words, we can say to convince them. The second is the fear of not being truly understood in the journal we want to publish our study. Sometimes what I see as creativity may seem absurd or uninteresting by others, potentially hindering acceptance and publication.	Fear of not being understood, Limited free thought environment, Fear of not receiving acceptance for the chosen topic

Table 2. The coding process in practice

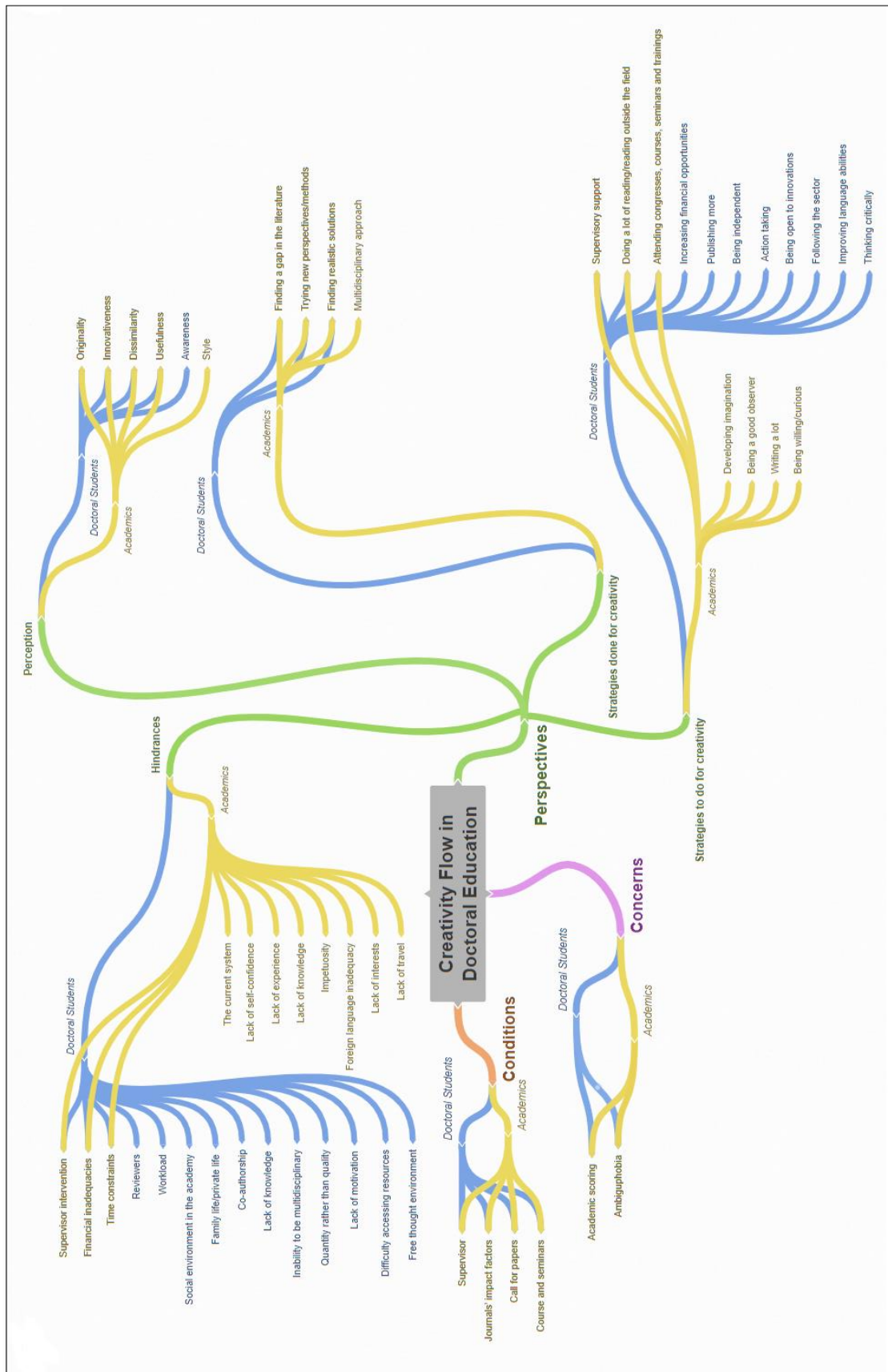
Open coding	Axial coding	Selective coding
Guidence by academics, current trend topics, Journals' special calls for papers, extracurricular trainings	Supervisor, Journals' impact factors, Call for papers, Course and seminars	The conditions theme relates to subject to be investigated, which reflected current symbolic rules in the academia.

Table 3. Dimensions and codes

Main Dimensions	Sub-dimensions	Doctoral Students		Academics	
		Codes	f	Codes	f
Perspectives	<i>Perception</i>	Originality	12	Originality	3
		Innovativeness	12	Innovativeness	2
		Dissimilarity	6	Dissimilarity	2
		Usefulness	2	Usefulness	2
		Awareness	2	Style	1
	<i>Hindrances</i>	Co-authorship	7	Impetuosity	3
		Supervisor intervention	11	The current system	5
		Reviewers	5	Lack of self-confidence	2
		Workload	3	Lack of experience	2
		Social environment in the academy	2	Lack of knowledge	4
		Family life/private life	4	Supervisor intervention	2
		Financial inadequacies	7	Financial inadequacies	1
		Lack of knowledge	6	Time constraints	1
		Time constraints	1	Foreign language inadequacy	1
		Inability to be multidisciplinary	7	Lack of interests	1
		Quantity rather than quality	2	Lack of travel	1
		Lack of motivation	3		
		Difficulty accessing resources	3		
	Free thought environment	5			
	<i>Strategies done for creativity</i>	Finding a gap in the literature	27	Finding a gap in the literature	6
Trying new perspectives/methods		4	Trying new perspectives/methods	4	
Finding realistic solutions		3	Finding realistic solutions	4	
			Multidisciplinary approach	3	
<i>Strategies to do for creativity</i>	Increasing financial opportunities	6	Being a good observer	1	
	Supervisory support	3	Supervisory support	3	
	Action taking	1	Developing imagination	1	

		Doing a lot of reading	8	Doing a lot of reading/reading outside the field	10
		Publishing more	1		
		Being independent	1	Attending congresses, courses, seminars and trainings	1
		Attending congresses, courses, seminars and trainings	7	Writing a lot	4
		Being open to innovations	1	Being willing/curious	1
		Following the sector	3		
		Improving language abilities	1		
		Thinking critically	2		
Conditions	<i>Supervisor</i>	Positive	14	Positive	8
		Negative	10	Negative	1
		Neutral	10	Neutral	2
		No idea		No idea	1
	<i>Journals' impact factors</i>	Positive	18	Positive	5
		Negative	2	Neutral	6
		Neutral	14	No idea	1
	<i>Call for papers</i>	Positive	2	Positive	6
		Negative	18	Negative	4
		Neutral	13	Neutral	1
		No idea	1	No idea	1
	<i>Course and seminars</i>	Yes	32	Yes	8
No		2	No	3	
			Partially	1	
Concerns	<i>Academic scoring</i>	Yes	23	Yes	8
		No	11	No idea	1
				Variable	3
	<i>Ambigophobia</i>	Yes	6	Yes	7
No		28	No idea	5	

Fig 1. Main framework



Author statement

Ibrahim Cifci: Conceptualization; Methodology; Formal analysis; Writing – original draft; Writing – review & editing; Supervision. Gonul Akin: Data collection, Methodology; Formal analysis; Writing – original draft; Erose Sthapit: Writing – original draft.