

MEMORABLE TOURISM EXPERIENCES IN RURAL ENVIRONMENTS: ACTION RESEARCH WITH ENTREPRENEURS FROM ROTA DO QUEIJO – TERROIR VERTENTES, MINAS GERAIS, BRAZIL

EXPERIÊNCIAS TURÍSTICAS MEMORÁVEIS EM AMBIENTES RURAIS: PESQUISA-AÇÃO COM EMPREENDEDORES DA ROTA DO QUEIJO - TERROIR VERTENTES, MINAS GERAIS, BRASIL

MOTIVADORES Y DETERMINEXPERIENCIAS TURÍSTICAS MEMORABLES EN AMBIENTES RURALES: INVESTIGACIÓN-ACCIÓN CON EMPREENDEDORES DE LA ROTA DO QUEIJO – TERROIR VERTENTES, MINAS GERAIS, BRASILS

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Abstract

Memorable tourism experiences have become progressively relevant to the context of rural tourism. To meet the expectations of tourists, producers and local managers must know the characteristics of memorable experiences to structure tourist products that tourists remember positively, influencing their attitudes and behaviors during and after their trip. This paper aims to investigate the process of developing techniques and knowledge to create memorable tourism experiences with family farmers. A qualitative study was carried out using the action research method, with 17 cheese marketers from 9 municipalities in the Campo das Vertentes region in Minas Gerais. The methodological strategies used were remote workshops, questionnaires to create experiences via Google Forms, field visits and notes in the researchers' electronic diary. The remote workshops were divided into five stages and resulted in 12 experiences. We found that with the intervention of the workshops, family farmers were able to develop a plan with the researchers to offer memorable tourist experiences, considering aspects of identification, characterization, and commercialization of products. The main result of this research was the construction of knowledge with family farmers to promote autonomy to offer tourist experiences with innovation, technical quality, and hospitality. The 12 experiences created demonstrate that rural producers could associate the knowledge systematized in the workshops with their local realities and natural and cultural resources.

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Palavras - chave:

Turismo rural;
Experiências turísticas
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Pesquisa-ação;
Roteiro turístico;
Minas Gerais.

Resumo

Experiências turísticas memoráveis vêm se tornando progressivamente relevantes para o contexto do turismo no espaço rural. Para atender as expectativas de turistas, produtores e gestores locais devem conhecer as características das experiências memoráveis com o propósito de estruturar produtos turísticos que se sedimentem positivamente nas lembranças dos turistas, influenciando suas atitudes e comportamentos durante e após as viagens. Neste artigo, objetivou-se investigar o processo de desenvolvimento de técnicas e conhecimentos para a criação de experiências turísticas memoráveis junto a produtores da agricultura familiar. Realizou-se um estudo qualitativo, empregando o método da pesquisa-ação junto a 17 produtores agroalimentares de 9 municípios da Região do Campo das Vertentes em Minas Gerais. As estratégias metodológicas utilizadas foram oficinas remotas, questionários para criação de experiências via Google Forms, visita de campo e anotações em diário eletrônico dos pesquisadores. As oficinas remotas dividiram-se em cinco etapas e resultaram na criação de 12 experiências. Constatou-se que com a intervenção das oficinas os agricultores familiares foram capazes de elaborar junto aos pesquisadores um plano de oferta de experiências turísticas memoráveis, considerando aspectos de identificação, caracterização e comercialização dos produtos. O principal resultado desta pesquisa foi a construção de conhecimentos junto aos agricultores familiares de modo a promover autonomia para a oferta de experiências turísticas com inovação, qualidade técnica e hospitalidade. As 12 experiências criadas evidenciam que os produtores rurais foram capazes de associar os conhecimentos sistematizados nas oficinas com suas realidades locais e recursos naturais e culturais.

Palabras clave:

Turismo rural;
Experiencias turísticas
memorables;
Investigación-acción;
Ruta turística;
Minas Gerais.

Resumen

Las experiencias turísticas memorables se han vuelto cada vez más relevantes en el contexto del turismo rural. Para cumplir con las expectativas de los turistas, los productores y gestores locales deben conocer las características de las experiencias memorables para estructurar productos turísticos que sedimenten positivamente en la memoria de los turistas, influyendo en sus actitudes y comportamientos durante y después del viaje. En este artículo, el objetivo fue investigar el proceso de desarrollo de técnicas y conocimientos para la creación de experiencias turísticas memorables con agricultores familiares. Se realizó un estudio cualitativo, utilizando el método de investigación-acción, con 17 productores agroalimentarios de 9 municipios de la región de Campo das Vertentes en Minas Gerais. Las estrategias metodológicas utilizadas fueron talleres a distancia, cuestionarios para crear experiencias a través de Google Forms, visitas de campo y notas en el diario electrónico de los investigadores. Los talleres remotos se dividieron en cinco etapas y dieron como resultado la creación de 12 experiencias. Se encontró que, con la intervención de los talleres, los agricultores familiares lograron desarrollar un plan con los investigadores para ofrecer experiencias turísticas memorables, considerando aspectos de identificación, caracterización y comercialización de los productos. El principal resultado de esta investigación fue la construcción de conocimiento con agricultores familiares con el fin de promover la autonomía para ofrecer experiencias turísticas con innovación, calidad técnica y hospitalidad. Las 12 experiencias creadas muestran que los productores rurales lograron asociar los saberes sistematizados en los talleres con sus realidades locales y los recursos naturales y culturales.

INTRODUCTION

Tourism planning and management are intrinsically related processes that mobilize a complexity of actions, social agents and also concepts (Hall, 2004). The temporal dimension of these two elements is different, given that planning deals with medium and long-term actions, while management usually deals with the here and now (Fratucci, 2014). Although they are distinct concepts and processes, it is the confluence of planning and management that can make tourism a catalyst of benefits for the different sectors and agents of society involved with its development (Fratucci, 2014). In this sense, there are different strategies and tactics to operationalize the planning and management processes according to the space in which it occurs and its historical, cultural, political and institutional context.

The geographic cutout of the present research is in the rural space. According to Souza Neto and Marques (2021), the benefits of tourism for the rural space usually overflow to other areas and may cause as effects the reduction of rural exodus, the increase in the quality of life and well-being of the population, the preservation of culture and traditional ways of life, among other aspects related to local development. In the rural environment, a tourist experience is generally opposed to mass tourism and its consequent social agglomerations. The demand for rural tourism can be considered more modest, and the supply of equipment and services is generally reduced, allowing tourists to experience leisure moments linked to nature and the traditional peasant way of life (Valduga *et al.*, 2021).

The current market trends in Brazil value the tourist experiences in more isolated environments, with the possibility of longer stays, travel in small groups, opportunities for private transportation and greater direct contact with nature, characteristics that set rural tourism apart from other tourism modalities (Valduga *et al.*, 2021). Another contemporary trend lies in the interest for memorable tourism experiences, those that are positively sedimented in tourists' memories and influence their attitudes and behaviors during and after the trip (Kim, 2014). There are some studies that frame the characteristics of memorable experiences in rural areas (Kastenholz *et al.*, 2018; Ye *et al.*, 2020). However, the focus of such research usually lies on measuring aspects of the memorable tourism experience from the tourists' perspective, leaving a gap of studies on how social agents of supply can format experiences in rural space with a focus on memorability.

Aiming at the potential benefits generated by rural tourism, the Federal Fluminense Federal University (UFF) executed the project *Experiências do Brasil Rural (EBR)*, in partnership with the Ministry of Tourism (Mtur) and the Ministry of Agriculture, Livestock and Supply (MAPA). The project started in February 2021, with the publication of Public Call Notice No. 01/2021 on March 4th of the same year. Its purpose was to qualify, promote, and support the development of tourism in rural areas, through a work focused on products associated with tourism, and which, in its first edition, were inserted in tourist routes belonging to the agri-food chains of cheese, wine, beer, and Amazon fruits.

In this article, we report on the creation and planning of memorable tourist experiences with family farmers in the Cheese Route - Terroir Vertentes, located in the Campo das Vertentes Region of Minas Gerais. The objective of the article is to evaluate the process of developing techniques and knowledge for the creation of memorable tourist experiences with family farmers. For this, a qualitative study was carried out, employing the action-research method with 17 cheese producers. The methodological strategies used were remote workshops, questionnaires for creating experiences via Google Forms, field visits, and notes in the researchers' electronic diary.

After this introduction, the paper is divided into five sections. The first presents a literature review on tourist experiences and the characteristics that lead to memorability. Next, the «Experiences from Rural Brazil» project is described in order to situate the empirical research. The following section details the methodological procedures and describes the Cheese Route to then present and discuss the results of the action research. Finally, the final considerations are presented, composed by the pointing of contributions, limitations, and possibilities of theoretical deepening evidenced in this study.

THEORETICAL BACKGROUND

People's experiences while traveling are among the fundamental issues in tourism studies. Classic authors such as Cohen (1979), Jafari and Ritchie (1981), Krippendorf (1987), and Urry (1990) have examined what motivates tourists, what their expectations and experiences are, what impacts they generate, and how these factors translate into behavior during trips. The temporal and spatial dimensions are determinant in this discussion, since what distinguishes the trivial experience from the tourist experience lies precisely in the extraordinary period of the trip (Urry & Larsen, 2011; Pezzi & Viana, 2015). However, the tourist experience is not experienced uniformly by all travelers. Firstly, because the word "tourist" encompasses a wide variety of individuals with different needs, desires, ways of being and acting (Cohen, 1979). In this sense, travel is experienced in different ways. Second, every individual carries with them a repertoire of previous experiences that condition their interpretation of the tourist experience and, therefore, travel becomes imbued with a variety of meanings (Trigo, 2013).

When it emerges in post-industrial society, tourism is characterized as an economic activity of the service sector - as it is considered until today for statistical purposes. However, increased competitiveness among businesses, the advancement of Information and Communication Technologies (ICTs), and consumer needs have been transforming service economies into 'experience economies'. Pine and Gilmore (1999) introduce this concept in the 1990s by developing an analogy between services and theater. According to the authors, "companies stage an experience every time they engage with customers, connecting with them in a personalized and memorable way" (Pine & Gilmore, 1998, p. 3, emphasis added). Thus, it has become a recurring point in the literature that tourism is part of the experience economy (Shaw & Williams, 2004). The stage of tourism interactions involves the performance of various social actors who together compose the travel scene and provide the tourist experience.

The success of service providers in the experience economy depends on a few factors. First of all, it depends on mastering the characteristics that make experiences memorable. Originally, Pine and Gilmore (1998, 2011) suggested four main dimensions for these experiences, divided by the degree of immersion and participation of individuals: the learning and escapism dimensions are the most active, while entertainment and aesthetics require more passive participation.

Furthermore, Pine and Gilmore (1998, 2011) propose five principles for the design of memorable experiences. The first refers to the thematization of the experience, i.e., it should refer to some theme that endures the experience. Second, the experience should be permeated with positive signals, instructions that are easy to follow. In contrast to the second point, the third is to eliminate negative references or distractions. The fourth guideline suggests materializing the experiences - souvenirs, mementos, photographs, or other elements of material culture that make the memory of the experience tangible. Finally, the fifth guideline suggests that an experience stimulates as many senses as possible.

Diversas são as opções de entretenimento no seguimento de parques temáticos, um mercado que movimentava amplamente a economia e que desperta, anualmente, em milhões de pessoas, a intenção de visitar essa forma de entretenimento como uma opção de férias e lazer (Vogel, 2007), muitas vezes em grupos.

In tourism studies, research has been scrutinizing the scope of the memorability of tourist experiences. Affective factors have been progressively investigated (Bastiaansen *et al*, 2019; Coelho, Gosling & Almeida, 2018; Servidio & Ruffolo, 2016), as well as cognitive (Kastenholz *et al*, 2018; Kim & Ritchie, 2014) and environmental (Kastenholz, Marques & Carneiro, 2020) factors.

Memorable tourist experiences (MTE) are those that are positively sedimented in tourists' memories (Kim, Ritchie & McCormick, 2012). Although not exclusively positive, studies highlight that positive experiences tend to sediment more in memory than negative experiences if it comes to travel contexts (Coelho, Gosling & Almeida, 2018; Kim, Ritchie & McCormick, 2012). The characteristics of these positively memorable experiences have become a fertile field of study in recent years. Kim (2014) indicates ten relevant constructs for measuring the memorability of tourist destinations: local culture; variety of activities; hospitality; infrastructure; destination management; accessibility; quality of services; physical geography; place attachment; and superstructure. These factors operate as antecedents of potential destination memorability, which can be useful to public and private managers in tourism planning.

On the other hand, the tourist experience is not conditioned solely on objective factors such as some of those mentioned above. In fact, tourist experience has to do with processes of signification in the periods before, during and after a trip and, therefore, is not only limited to attributes of the destination, but also to attributes of the individual experience (Coelho, Gosling & Almeida, 2018).

In line with and complementary to these components, Coelho, Gosling, and Almeida (2018) qualitatively examine the core elements of MTEs, developing a process model with three dimensions: ambience, socialization, and emotion and reflection. The processes involving socialization, emotion, and reflection have points of convergence with Kim and Ritchie's (2014) factors. For example, interaction with the local culture holds similarities with socialization processes, although the latter also encompasses interactions with other tourists or fellow travelers (Coelho, Gosling, & Almeida, 2018). The affective dimension present in Kim and Ritchie's (2014) hedonism, meaning, and involvement is also manifested in Coelho, Gosling, and Almeida (2018). There are authors who consider emotions to be the neuralgic point of the memorable experience (Bastiaansen *et al.*, 2019), more than cognitive elements such as attention, engagement, and immersion, for example. However, this is not a unanimity among the different authors on the topic.

The degree of novelty of the tourist experience is one of the factors that find the most agreement in the tourism literature on memorable experiences (Coelho, Gosling & Almeida, 2018; Kim & Ritchie, 2014). For Ye *et al.*, (2020) the novelty of an experience is within the scope of the extraordinary, next to the pleasure of the trip. They contrast the extraordinary with common aspects, which would be perceived quality and satisfaction. These authors reveal that extraordinary factors are more conducive to the formation of perennial memories than ordinary ones in the context of rural tourism (Ye *et al.*, 2020).

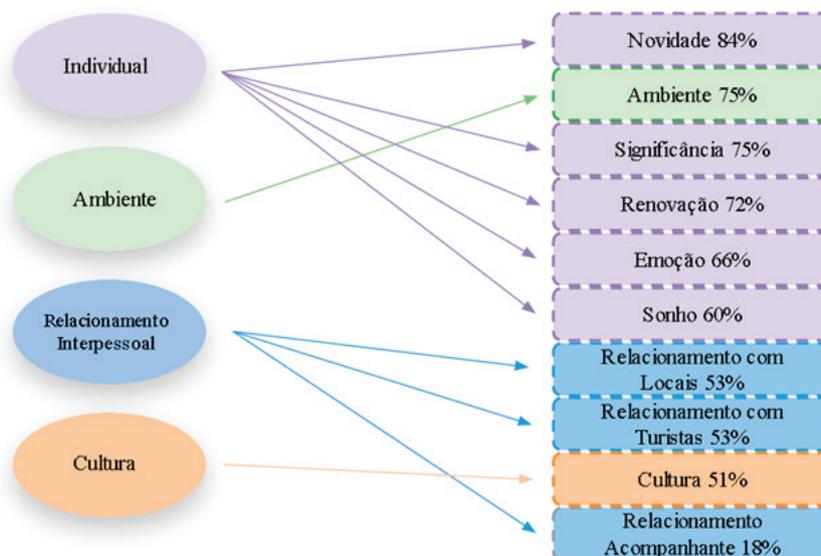
In addition to cognitive and affective factors, the literature has been incorporating environmental aspects into studies of the memorability of the tourism experience. Coelho, Gosling, and Almeida (2018, p. 17) explain that "ambience evokes the tourist's immersion in the environment where the

activity takes place. It involves both the contact with the tourist attractions and the basic access infrastructure". Understanding the attractiveness of environmental factors is fundamental to the design of tourist experiences because it enables the creation of opportunities to stimulate senses and emotions, desirably generating relationships of attachment to the place by tourists (Kastenholz, Marques & Carneiro, 2020). These authors demonstrate how different sensory experiences condition the emotions of tourists and hikers in rural space: "[...] sight, smell and touch show more potential to provide joy, while sight, hearing and smell seem to be more related to relaxation" (Kastenholz, Marques & Carneiro, 2020, p. 8).

In view of the exposed literature, it is observed that dealing with MTEs requires understanding them as a multidimensional construct, that is, stating that memorable experiences result from a set of elements and processes that permeate the tourist experience. Coelho (2017) examines in a sample of Brazilian travelers the aspects that make a trip memorable (Figure 1). Statistical treatment of the data revealed four main dimensions that affect the memorability of the experience: the environment; culture; interpersonal relationships; and individual and psychological influences. Each dimension is operationalized by a set of variables, of which the most significant for memorability are: the degree of novelty provided by the tourist experience, corroborating Kim & Ritchie (2014), the environment, the meaning provided by the trip, renewal, emotional aspects, and the sense of fulfillment of a dream.

The model presented in Figure 1 is particularly relevant to this article for two reasons. First, the work was conducted in a Brazilian context, which makes it more adherent to the empirical context presented in the present research. Coelho (2017) even reports that other attributes traditionally present in the international literature, such as hedonism and involvement, did not show statistical consistency in the sample of Brazilians consulted. Secondly, because these aspects that impact the generation of memories have practical implications for service providers in tourism.

Figure 1 – Aspects that impact the memory of travel experiences of Brazilians



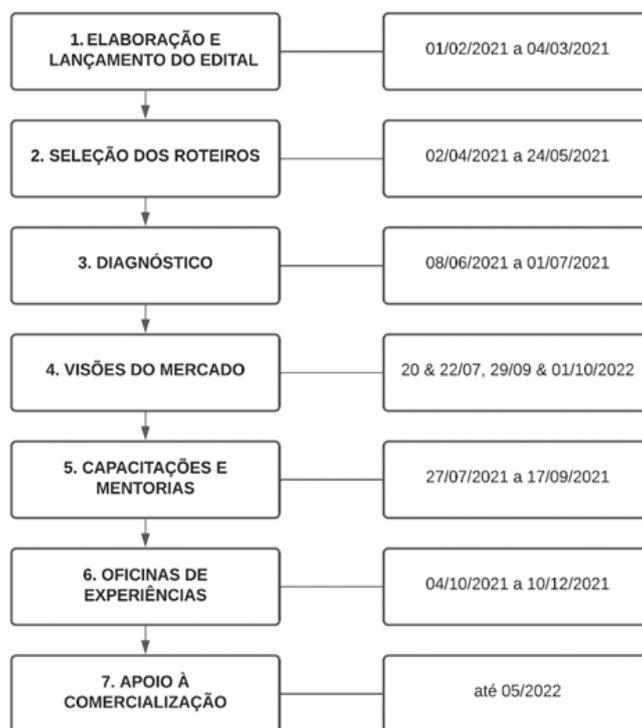
Source: Elaborated based on Coelho (2017).

The attributes present on the right of Figure 1 can inspire adaptations in pre-existing tourism experiences and also serve as a guide for entrepreneurs seeking to format new experiential products. It is precisely against this theoretical backdrop that this paper is set.

PROJECT “EXPERIENCES FROM RURAL BRAZIL

The EBR Project took place from February 2021 to January 2022, remotely, and had several stages, illustrated in figure 2.

Figure 2 - Stages of the “Experiences from Rural Brazil” project.



Source: Elaborated by the author (2022).

The first stage, “elaboration and launch of the call for proposals”, referred to the construction and dissemination of the call for proposals for the EBR Project, according to the proposal devised by the partnership between UFF, Mtur and MAPA. From the evaluation of the tourist routes registered during the second stage, “route selection”, eight tourist routes from four regions of the country were chosen: the North, Northeast, Southeast and South. After the selection process was concluded, the third stage, ‘diagnosis’, began, with activities directed to the entrepreneurs participating in the project, by means of a participative diagnosis, carried out entirely in a remote format, using its own methodology, developed by the UFF team. Next, the fourth stage, ‘market visions’, provided lectures via Youtube with innovative content for rural tourism, with a focus on family agriculture, in order to expand the marketing vision of the producers participating in the project. In the fifth stage, ‘training’, each route was indicated to participate in four training topics, according to the needs perceived in the diagnosis stage.

Next, the sixth stage of the project 'Workshop of experiences' provided courses for the creation of MTEs for the project participants, in an attempt to qualify the roadmaps through the insertion of family farming products and services in the Brazilian tourism market, as well as to support the formatting and positioning of experience tourism products and roadmaps in rural areas. Finally, the seventh stage, 'Support for promotion and commercialization', provided support, together with Mtur and MAPA, for the promotion of the routes included in the Edict, such as the participation of the routes in relevant fairs and events that took place in 2021, such as the International Tourism Festival (FESTURIS), in Gramado, RS, and the Iguassu Falls Festival, in Foz do Iguaçu, PR, the elaboration of a catalog with images and photos of the route members, among others.

On the eligibility of the tourist routes for the project, in addition to the participation of at least one family farmer linked to one of the specific production chains of cheese, wine, beer, or Amazonian fruits, or 10% of the establishments of the route. Such landowners should present a Declaration of Aptitude to Pronaf (DAP). This declaration is an instrument used to identify and qualify the family farming Units of Agrarian Production (UFPA) and their associative forms organized in legal entities. The DAP allows the family farmer to enter public policies to encourage production and income generation.

In order to guarantee the registration and to be approved in the selection process, the representatives or managers of the tourist routes should present supporting documents such as declarations from municipal or state tourism bodies, attesting to the existence of the route; proof of promotion and commercialization of the route and of the rural undertakings, such as folders, social network pages, and other promotional materials; in addition to declaring and certifying the presence of tourist attractions and undertakings in the area covered by the route.

It is worth mentioning that, in February 2022, a public notice was launched for a new edition of the project, contemplating the productive chains of cachaça, coffee, honey, and manioc flour.

Methodology

To evaluate the process of developing techniques and knowledge for the creation of memorable tourist experiences with family farming producers, we opted for qualitative-descriptive research, a strategy considered, along with qualitative-exploratory research, one of the most used in studies at the Master's level in Brazil (Costa *et al.*, 2018; Ferro & Rejowsky, 2020), carried out through action research. Action research aims at transformation, in any area of human knowledge, insofar as it promotes ways to execute with greater efficiency and effectiveness the activities involved in the project to be worked on. To this end, it seeks to develop techniques and knowledge necessary to strengthen the activities developed by a given social group, valuing the knowledge and daily practices of those involved (Thiollent, 1992).

Action research is a research approach that uses "established research techniques to inform the action one decides to take to improve practice" (Tripp, 2005, p. 447), and these techniques must meet the criteria and rigors common to academic research. The method allows the researcher to approach the data, and thus develop the analytical, conceptual, and explanatory components (Roesch, 1999).

The purpose of action research is the transformation of the reality that affects the people involved (Baldissera, 2001). For this author, this technique requires a participative/collective relationship structure between researchers and those involved in the study of reality. It is necessary that there is a wide interaction between these parties so that there is a greater accumulation of knowledge by the researchers and the groups participating in the process, contributing to discussions and advancing the debate about the issues addressed (Thiollent, 1992), characterizing, in fact, a participatory research method.

The action analyzed here is located in the Experiences Workshops stage of the EBR Project, whose methodological tools used were remote workshops, questionnaires via Google Forms, field visits and notes in the researchers' electronic diary. As the project aimed to create MTEs, an important indicator that will be verified is the validation of the activities created by the rural family farmers, whose records of the researchers' impressions were made soon after the on-site validation of such activities.

Next, the Cheese Route - Terroir Vertentes will be presented, one of the eight tourist routes contemplated by the EBR Project, chosen as the cutout of the present study for being the one that contains the largest number of rural family producers and involves the largest number of municipalities.

Cheese Route – Terroir Vertentes, Minas Gerais

The Cheese Route was one of the eight members contemplated by the first Public Call Notice No. 01/2021 of the EBR project. It is located in the mesoregion of Campo das Vertentes, in the center-south of the state of MG (Gajo *et al.*, 2017), as shown in Figure 3 below. The region is 1578 km from the capital, Belo Horizonte and has a total area of 12,563.667 km.

Figure 3 – Maps of the Campo das Vertentes mesoregion, MG.



Source: Gajo *et al.* (2017).

Of the total of 36 municipalities found in Campo das Vertentes, 26 are part of the selected study object (Ministry of Tourism, 2021). However, 23 municipalities were presented in the application for participation in the EBR project, being them: Alfredo Vasconcelos, Antônio Carlos, Barbacena, Barroso, Carrancas, Conceição da Barra de Minas, Coronel Xavier Chaves, Dolores de Campos, Entre Rios de Minas, Ibituruna, Itutinga, Lagoa Dourada, Madre de Deus de Minas, Nazareno, Piedade do Rio Grande, Prados, Resende Costa, Ritópolis, Santa Cruz de Minas, São João del Rei, São Tiago, São Vicente de Minas, and Tiradentes.

Regarding the number of family farming enterprises present in the Cheese Route, 33 were enrolled in the selection process, 8 of which had DAP. Of this amount, 12 enterprises proceeded to the final stage of the project, 4 being DAP holders, which obtained the validation of their MTEs formatted during the workshops for the creation of tourism experiences. The municipalities represented by these enterprises were: Barbacena, Coronel Xavier Chaves, Entre Rios de Minas, São João Del Rei, Piedade do Rio Grande, Prados, Resende Costa, Ritópolis, and São Tiago.

Visitors to the Cheese Route - Terroir Vertentes can get to know the culture and the routine of family farmers, in addition to tasting several traditional delicacies of the mining region, especially the artisanal Minas cheese (QMA), declared by the National Historic and Artistic Heritage Institute (IPHAN) as a Cultural Heritage of Brazil. The cheese is an ancient product, which can be attributed both as a food and as a cultural manifestation of the state of Minas Gerais, considering the ancestry of its way of making and its importance for the sustainability of families in the mining region (IPHAN, 2008).

Still about the Cheese Route - Terroir Vertentes, the Ministry of Tourism (2021) articulates that visitors have

the possibility to stay in some properties of the route and perform typical rural activities, such as horseback riding and milking the animals that provide the raw material of the product, always guided by hosts regarding the processes of spice elaboration. Another option is to delight yourself in typical restaurants of the traditional gastronomy, which also includes special coffees, sweets, and artisanal cachaça, among other attractions, and to participate in pedagogical activities linked to the rural context.

With regard to the governance scenario of the route, the presence of two instances of government can be noted, namely: the Circuito Trilha dos Inconfidentes and the Empresa de Assistência Técnica e Extensão Rural do Estado de Minas Gerais (Emater-MG). The first is a non-profit organization, founded in August 2000, which aims to promote sustainable tourism in the Trilha dos Inconfidentes region and was responsible for its inclusion in the EBR project. While the second, Emater-MG, founded in 1948 and the largest public company in the sector in Brazil, has as its objective the promotion of technical assistance and rural extension for family farmers in the state of MG, in order to guarantee sustainable development and foster quality of life for the society of Minas Gerais.

Next, the results and discussions are presented according to what was done and recorded in the creation and validation phases of the tourism experiences developed by the rural owners of the Cheese Route - Terroir Vertentes, under the guidance of the project team.

Results

The MTE creation workshops were divided into five phases corresponding to the verbs: know, learn, create, consolidate, and validate. The first four phases occurred in a virtual way, while the last phase was destined to a face-to-face visit to the roadmaps. Each phase and its respective objectives can be seen in figure 4 below:

Figure 4 – Phases of the workshops for creating Memorable Tourism Experiences.



Source: Elaborated by the author (2022).

For the execution of the ten remote meetings referring to the workshops, the Zoom application was used throughout the month of October. The first and second weeks had two meetings of two hours each, referring to the phases 'knowing' and 'learning', respectively. The third and fourth weeks featured three meetings of two hours each. About the 'validate' phase, this occurred in different weeks for each route, having occurred in the second week of November for the Cheese Route.

It is worth noting that the methodology developed by the project team followed a theoretical framework composed mainly of the following references: Coelho (2017), Coelho, Gosling and Almeida (2018), Jim and Ritchie (2013), Pine and Gilmore (2011), Kastenholz *et al.* (2018), Pezzi and Viana (2015).

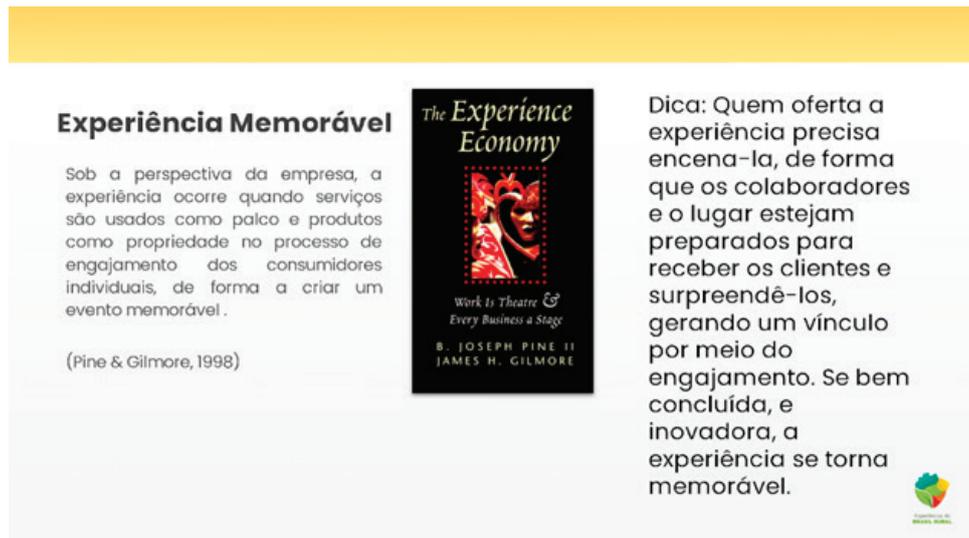
The five phases that make up the MTE Workshops will be analyzed below.

The Knowing Phase

The 'Knowing' phase focused on the presentation of the main theoretical approaches about MTEs, and examples of market trends, preferably national ones. About the theoretical approaches, it sought to analyze which aspects foster the memorability of a tourism experience, therefore, concepts

from Pine and Gilmore (1998), Trigo (2010) and Coelho (2017) were used to make the farmers develop this knowledge, according to figure 5.

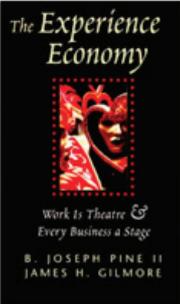
Figure 5 – Slide about memorable experience.



Experiência Memorável

Sob a perspectiva da empresa, a experiência ocorre quando serviços são usados como palco e produtos como propriedade no processo de engajamento dos consumidores individuais, de forma a criar um evento memorável.

(Pine & Gilmore, 1998)



Dica: Quem oferta a experiência precisa encená-la, de forma que os colaboradores e o lugar estejam preparados para receber os clientes e surpreendê-los, gerando um vínculo por meio do engajamento. Se bem concluída, e inovadora, a experiência se torna memorável.

Source: Elaborated by the author (2021).

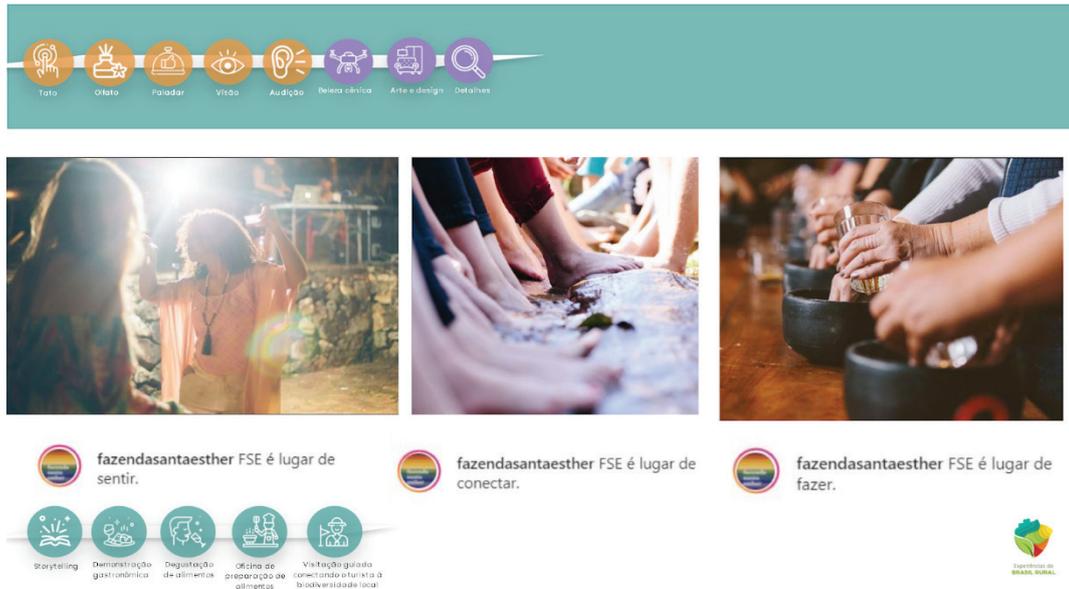
With respect to examples of market trends for family farmers, the objective was to present the main global trends that may transform tourism in the coming decades; to analyze short-term trends with immediate impact on tourism experiences, and to prepare them to design experiences in the present, in line with the medium and long term. Besides the examples on sustainable tourism, space tourism, among other modalities originated after the COVID-19 pandemic, virtual platforms of experiences such as TripAdvisor and AirBnB Experiences were presented, which disseminate and market trends and fads that may come to influence the tourism market. In this way, according to Valduga *et al.* (2021) the project participants could become able to innovate their tourism offer, while maintaining the traditional roots of peasant life, respecting Pine and Gilmore's (1998, 2011) first principle about thematization, in this case, of a rural experience.

The Learning Phase

A The 'Learning' phase presented several tools that can be used in the construction of experiences, always in the light of diversified examples that could contribute to reflections and inspirations about memorability (see figure 6, below). The tools presented were storytelling, gamification, events, gastronomy demonstration, food preparation workshops, food tasting, insertion of traditional artifacts for tourist use, handicrafts demonstration, handicraft preparation workshops, use of visual resource, guided visitation connecting the tourist to the gastronomic demonstration, food tasting, workshop for the preparation of local biodiversity, organization of spaces for relaxation close to nature, trails, workshops with activities focused on environmental preservation, environment, recreational activities, benchmarking and knowledge about fauna, flora and stars. Such tools can serve as factors to stimulate memorability through affectivity (Bastiaansen *et al.*, 2019; Coelho, Gosling &

Almeida, 2018; Servidio & Ruffolo, 2016), cognition (Kastenholz *et al*, 2018; Kim & Ritchie, 2014) and environment (Kastenholz, Marques & Carneiro, 2020).

Figure 6 – Slide with MTE example.



Source: Elaborated by the author (2021).

Regarding the tools used in the example above, it was observed the storytelling, food preparation workshop and guided visitation, connecting the tourist to the local biodiversity. It was possible to observe the activation of all senses, considering the presence of music and dance (hearing, sight), crafts (touch) and culinary practices (taste and smell), respecting the last principle of Pine and Gilmore (1998, 2011) for the success of an experience, the stimulation of as many senses as possible.

The Creating Phase

The 'Creating' phase relied on the guidance of the team, in three different stages, and with the Google Forms tool as a support and record of what the owners envisioned for their activities. The workshops focused on the creation of activities had three stages, namely: 1) Identification, 2) Characterization, and 3) Commercialization of the activity, each subdivided into tasks, as shown in Chart 1 below, to be executed in three meetings:

Table 1 – Composition of the MTEs creation steps

| Phase | Description |
|----------------|----------------------|
| Identification | Name of the activity |
| | Objectives |
| | Location |
| | Description |

| | |
|-------------------|---|
| Characterization | Target audience |
| | Resources (equipment and supplies) |
| | Stimulated senses (touch, smell, taste, sight, hearing) |
| | Responsible (s) for execution |
| | Partnerships for execution |
| Commercialization | What is and is not included |
| | Duration |
| | Minimum and maximum number of participants |
| | Price |
| | Dissemination and commercialization |

Source: Elaborated by the author (2021).

Each of the steps was carried out in one of the daily meetings with the project participants. After each meeting, forms were made available via Google Forms for the producers to fill out. For the week's forms, it was suggested that they think about the characteristics that make their properties unique or their talents that could be transformed into experiences, always in search of achieving positive memorability and extraordinary feeling for tourists, according to the studies of Kim and Ritchie (2014), Coelho, Gosling, and Almeida (2018), and Ye *et al.* (2020).

The first meeting aimed to identify the core factors for the creation of MTEs and occurred through several national examples linked to rural tourism. Farmers were instructed to think about basic features of an experience such as its purpose and where it would occur. At the end of the meeting, the link to the first form was released for filling in the following aspects of the MTEs being created: name, objective, place where it would take place, and description of the experiences.

Regarding the second meeting, we tried to discuss the characteristics of the experiences in format. In this way, new MTEs were presented, and their technical characteristics were highlighted, such as the definition of the target audience, the resources needed to conduct the experiment (equipment and inputs), the human senses stimulated, who would be responsible for the execution of the experiment, and potential partnerships for its realization. Once again, at the end of the meeting, the producers received access to the second form, in order to fill in the items mentioned.

On the third and last meeting of the 'creating' phase, the team analyzed with the farmers the aspects related to the dissemination and commercialization of the MTE as the minimum and maximum number of participants, as shown in figure 7.

Figure 7: Slide on the number of participants in an MTE.

Qual o número mínimo e máximo de participantes?

Deve levar em conta o espaço, impacto ambiental, a infraestrutura, restrições sanitárias, viabilidade financeira, questões técnicas, segurança, custos e pessoal para atendimento



Ex: PICNIC TEMÁTICO: **de 10 a 15 pessoas**

Obs: O local negocia valores para grupos acima de 15 pessoas.



Source: Own elaboration (2022).

As usual, at the end of the meeting the form requesting commercial information from the MTEs was made available: duration, minimum and maximum number of participants, price, and the methods of dissemination and marketing (social networks, etc.).

The forms of all meetings should be delivered until 4pm the next day, so that the researchers responsible for the Cheese Route could provide feedback to rural producers in time for the next phase of the workshops.

Consolidate Phase

During the 'Consolidate' phase, the producers presented the result of their MTEs planning so that the other members of the roadmap could obtain knowledge of the others' activities and could think about partnerships, in search of greater autonomy and development of a local service network. Through the maintenance of their community, it is believed that the rural producers could intervene in their local reality, through the new techniques and tools for tourism activity (Souza & Klein, 2019) disseminated throughout not only the Experience Workshops, but the entire EBR project.

The project's research team developed a pitch template for rural producers to present their MTEs in a clear and objective way, according to figure 8.

Figura 8 - Record of the presentation of a rural producer from the Cheese Route - Terroir Vertentes.



Source: Own collection (2021).

In addition, the instrument can be used as a standard for later presentations, in opportunities to disseminate their MTEs remotely, at trade shows, or other business-oriented events. In total, 12 MTEs were created, as shown in Table 2.

Table 2: Name and description of the MTEs of the Cheese Route - Terroir Vertentes.

| Experience Name | Description |
|---|---|
| Afternoon Mining | Rustic lunch followed by a hike to the top of the mountain through the property. |
| Experiencing: Rancho das Vertentes Capril. | Visit to the goat breeding and its production of dairy products, and a pairing of goat cheese and wine. |
| Of cows and buffaloes: Telling stories and scraping the pot | Visit to cow and buffalo breeding, learn about the family history of the entrepreneurs and taste the dulce de leche produced on the farm. |
| Night Contemplation Tour | Night tour, climbing the mountain to appreciate the nocturnal environment of the forest and the Milky Way. |
| Gastronomic Tratur | A ride on a cart through the coffee plantation, explanation about the management process and tasting of the farm's products. |

| | |
|--|--|
| Coffee & Galope | Breakfast with local products followed by a riding experience on the estate's horses. |
| Gastronomic Dusk of the Tarots | Gastronomic afternoon with the preparation of a typical Italian cheese risotto and a visit to the estate's cheese factory to get to know the QMA. |
| Por-co-quinho - pigs that eat coconuts | A visit to the pig farm followed by a tasting of the charcuterie and dairy products of the estate. |
| Minas Gerais' cheese: from the pasture to the wood stove | Visit and cultural experience in the QMA producing farm, followed by a tasting of the charcuterie products and other delicacies. |
| Sunset at the Farm | Visit to the farm producing the first organic QMA. It is intended to demonstrate the philosophy of animal welfare, environmental sustainability and sunset appreciation. |
| Harmonization of Doce de Leite Dujapa | Visit to the winning farm of the 13th QMA State Contest and tasting of the dulce de leche with other delicacies available at the table. |
| Come "Matutar" with us | Afternoon coffee with products from Queijo do Matuto accompanied by a storytelling about life on the farm. |

Source: Elaborated by the author (2022).

It was possible to perceive the presence of Coelho's (2017) four dimensions, when considering the use, by the producers, of their stories and way of life to achieve the enchantment of tourists, which correspond to the dimensions 'culture' and 'interpersonal relationships'. Family farmers used several elements related to the 'environment' dimension, reinforcing and respecting the rural sphere of their enterprises (Kastenholz, Marques & Carneiro, 2020), through the presentation of their properties and respective animal husbandry. Regarding the 'individual and psychological influences' dimension, the use of tools such as storytelling, guided tours, fauna and flora observation, and food preparation and tasting was noticed.

After that, the farmers had a preparation period of about two weeks until the next step, which was the validation of the created experiences.

Validate Phase

The last phase, 'Validate', refers to the execution of the MTEs planned by the participants of the Cheese Route and counted with the face-to-face evaluation of the UFF team and a representative of the Ministry of Tourism to experience the experiences presented by family farmers and attest their memorability. The validation phase in the Cheese Route lasted five days, considering the date of arrival and return to Rio de Janeiro, with an average of three visits to different properties each day.

During the visits the environmental, cultural, structural and sensorial aspects of each experience were analyzed through a validation questionnaire in the Google Forms platform. This process considered characteristics such as creativity, innovation, uniqueness, memorability, safety, hygiene, interpersonal relationship, significance, among other issues addressed throughout the entire EBR project.

At the end of the validation phase, after the visits and evaluation of the answers to the team's forms and the information entered in the virtual field diary of the researchers responsible, all 12 MTEs presented in the Terroir Vertentes Cheese Route were validated and moved on to the 'Marketing Support' stage.

FINAL CONSIDERATIONS

In this article we report a research conducted as part of the project "Experiences from Rural Brazil" in 2021. The Fluminense Federal University executed the project in partnership with the Ministry of Tourism and the Ministry of Agriculture, Livestock and Food Supply, benefiting 163 local agents from eight rural tourism routes, including 83 family farmers and 80 tourism equipment representatives. In all, 71 tourism experiences were created and validated in six Brazilian states. For this study, we selected the Cheese Route - Terroir Vertentes as a geographic cutout for being the route with more family farmers involved and for being one of the routes that most planned and validated tourist experiences. By framing the article in this route, we were able to describe and analyze the process of developing techniques and knowledge for the creation of memorable tourist experiences with family farmers.

The "Experiences from Rural Brazil" project has characteristics of action research, an investigation method in which research is conceived and carried out in close association with an intervention or problem solving (Thiollent, 1992). Therefore, this article employed this method. In action research, researchers and the participating community are co-producers of the research process, the result of this interaction being the proposition of practical solutions to an issue of collective interest. Formulating memorable tourism experiences was the collective interest at the time of the project, in which family farmers participated in the process of conceiving, structuring, presenting and finally commercially offering tourism experiences with a focus on memorability.

The main result of this research was the construction of knowledge with family farmers in order to promote autonomy for formatting and offering tourist experiences with innovation, technical quality and hospitality. The 12 experiences created are evidence that farmers were able to associate the knowledge systematized in the workshops with their local realities and natural and cultural resources. Moreover, the organization of the workshops in five stages proved to be effective for, first, building knowledge and bringing farmers closer to the concepts and techniques that influence the tourist experience; second, making producers take responsibility for planning the experience, determining its identification, characteristics and marketing aspects; finally, producers collectively present and discuss their proposals, and then representatives of UFF and MTur visit the roadmap and proceed to validate the experiences.

The contributions of this article are of two natures: one methodological and the other practical. From the methodological point of view, an action research was undertaken to develop tourist experiences with family farmers, serving as a reference for future interventions that propose to format tourist experiences in rural areas. The methodology of the workshops was created in light of the

literature on memorable experiences and translates an effort to operationalize theory into practical procedures to better structure the tourist offer of rural tourism itineraries. From a practical point of view, the steps and processes presented in this article can serve as a guide for public and private managers interested in structuring memorable tourist experiences in the form of a marketable product. Furthermore, we emphasize the positive impacts for the community participating in the research, which became more skilled in planning their tourism product.

Two factors limit the results of this study. First, we observed little emphasis on the economic viability of the MTEs at the end of the validation of the experiences. Rural producers can and should plan experiences that aim for positive and transformative impact on tourists' subjectivity. However, this must be planned so that family farmers make a profit from their activities. After all, the goal of qualifying the rural tourism offer goes through the financial independence and autonomy of farmers, being a structuring pillar for the improvement of the quality of life of this population. In addition, although the theoretical framework of the research was the memorable tourist experiences, a factor that limits this article is the lack of measurement of memorability from the consumers' perspective.

In this sense, future research should contemplate procedures to validate memorable tourism experiences from the point of view of the experience consumers, in order to provide local producers with instruments to evaluate the memorability of their experiences. With this data, local producers will be able to implement continuous improvement processes and maximize positive perceptions about the experiences they offer. In addition, it is suggested to add to the process of creating experiences a stage aimed at determining the financial viability of the proposed experiences.

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REFERENCES

- Baldissera, A. (2001). Pesquisa-ação: uma metodologia do "conhecer" e do "agir" coletivo. *Sociedade em Debate*, 7(2), 5-25.
- Bardin, L. (2010). *Análise de conteúdo*. São Paulo: Edições 70
- Bastiaansen, M., Lub, X. D., Mitas, O., Jung, T. H., Ascenção, M. P., Han, D. I., ... & Strijbosch, W. (2019). Emotions as core building blocks of an experience. *International Journal of Contemporary Hospitality Management*, 31(2), 651-668. <https://doi.org/10.1108/IJCHM-11-2017-0761>
- Candiotto, L. Z. P. (2010). Elementos para o debate acerca do conceito de turismo rural. *Revista Turismo em Análise*, 21(1) 3-24.
- Coelho, M. (2017). *Viagens de brasileiros: um modelo de relações entre experiência turística memorável, mindfulness, transformações pessoais e bem-estar subjetivo*. [Tese de doutorado. Universidade Federal de Minas Gerais]. Repositório da UFMG: <https://repositorio.ufmg.br/handle/1843/BUOS-AZNKY3>
- Coelho, M., Gosling, M., & Almeida, A. S. A. (2018). Tourism experiences: Core processes of memorable trips. *Journal of Hospitality and Tourism Management*, 37, 11-22. <https://doi.org/10.1016/j.jhtm.2018.08.004>
- Cohen, E. (1979). A phenomenology of tourist experiences. *Sociology*, 13(2), 179-201. <https://doi.org/10.1177/03803857901300203>

- Costa, W. F., De Albuquerque Tito, A. L., Brumatti, P. N. M. & De Oliveira Alexandre, M. L. (2018). Uso de instrumentos de coleta de dados em pesquisa qualitativa: um estudo em produções científicas de turismo. *Turismo Visão e Ação*, 20(1), 2. <https://doi.org/10.14210/rtva.v20n1.p02-28>
- Ferro, R. C. & Rejowski, M. (2020). Metodologia da pesquisa em Gastronomia no campo científico do Turismo. *Revista Rosa dos Ventos – Turismo e Hospitalidade*, 12(3), pp. 463-483, <http://dx.doi.org/10.18226/21789061.v12i3p463>
- Fragelli, C., Irving, M. A., & Oliveira, E. (2019). Turismo: fenômeno complexus da contemporaneidade. *Caderno Virtual de Turismo (UFRJ)*, 19, 1-17. <http://dx.doi.org/10.18472/cvt.19n3.2019.1663>
- Fratucci, A. C. (2014). Turismo e território: relações e complexidades. *Caderno Virtual de Turismo*, 14(1), 87-96.
- Gajo, F., Gajo, A., Silva, R., & Ferreira, E. (2016). DIAGNÓSTICO DA DESTINAÇÃO DO SORO DE LEITE NA MESORREGIÃO DO CAMPO DAS VERTENTES – MINAS GERAIS. *Revista do Instituto de Laticínios Cândido Tostes*, 71(1), 26-37. <https://doi.org/10.14295/2238-6416.v70i1.501>.
- Hall, C. M. (2004). Planejamento turístico: políticas, processos e relacionamentos. *Contexto*.
- Instituto do Patrimônio Histórico e Artístico (IPHAN). (2008). Dossiê Interpretativo - Queijo artesanal de Minas: Patrimônio Cultural do Brasil Disponível em: http://portal.iphan.gov.br/uploads/ckfinder/arquivos/Dossiê_mod0_fazer_queijo_minas.pdf Acesso em: 14 fev. 2022.
- Jafari, J., & Ritchie, J. R. B. (1981). Toward a framework for education: Problems and prospects. *Annals of Tourism Research*, 8(1), 13-34. [https://doi.org/10.1016/0160-7383\(81\)90065-7](https://doi.org/10.1016/0160-7383(81)90065-7)
- Kastenholz, E., Carneiro, M. J., Marques, C. P., & Loureiro, S. M. C. (2018). The dimensions of rural tourism experience: impacts on arousal, memory, and satisfaction. *Journal of Travel and Tourism Marketing*, 35(2), 189-201. <https://doi.org/10.1080/10548408.2017.1350617>
- Kim, J. H. (2014). The antecedents of memorable tourism experiences: The development of a scale to measure the destination attributes associated with memorable experiences. *Tourism management*, 44, 34-45. <https://doi.org/10.1016/j.tourman.2014.02.007>
- Kim, J. H., & Ritchie, J. B. (2014). Cross-cultural validation of a memorable tourism experience scale (MTES). *Journal of Travel Research*, 53(3), 323-335. <https://doi.org/10.1177/0047287513496468>
- Kim, J. H., Ritchie, J. B., & McCormick, B. (2012). Development of a scale to measure memorable tourism experiences. *Journal of Travel Research*, 51(1), 12-25. <https://doi.org/10.1177/0047287510385467>
- Kim, J. H., Ritchie, J. R., & Tung, V. W. S. (2010). The effect of memorable experience on behavioral intentions in tourism: A structural equation modeling approach. *Tourism Analysis*, 15(6), 637-648. <https://doi.org/10.3727/108354210X12904412049776>
- Krippendorf, J. (1987). *Holiday makers: Understanding the impact of leisure and travel*. Routledge.
- Ministério do Turismo. (2021). Experiências do Brasil Rural: as delícias da Rota do Queijo Terroir Vertentes, em Minas Gerais. Disponível em: <https://www.gov.br/turismo/pt-br/assuntos/noticias/experiencias-do-brasil-rural-as-delicias-da-rota-do-queijo-terroir-vertentes-em-minas-gerais> Acesso em: 14 fev. 2022
- Moesch, M. M. (2000). *A Produção do Saber Turístico*. Contexto.
- Nascimento, I., Maia, A. F., & Dias, P. O. D. O. (2012). A experiência como produto turístico: a emoção e a sensação do novo e diferente. *Turismo: Estudos e Práticas - UERN*, 1(2), 142-159. Disponível em: <http://periodicos.uern.br/index.php/turismo/article/view/342/231>.
- Pezzi, E., & Vianna, S. L. G. (2015). A Experiência Turística e o Turismo de Experiência: um estudo sobre as dimensões da experiência memorável. *Revista Turismo em Análise*, 26(1), 165-187.
- Pine, B. J., & Gilmore, J. H. (1998). *Welcome to the experience economy*. Harvard Business Review,
- Pine, B. J., & Gilmore, J. H. (2011). *The experience economy*. Harvard Business Press.

- Santos, I. S., Alves, C. E. S., & Dewes, H. (2021). Produção científica no empreendedorismo rural relacionado ao turismo. *Revista Brasileira de Pesquisa em Turismo*, São Paulo, 15(3), 1-18. <https://doi.org/10.7784/rbtur.v15i3.2037>.
- Servidio, R., & Ruffolo, I. (2016). Exploring the relationship between emotions and memorable tourism experiences through narratives. *Tourism Management Perspectives*, 20, 151-160. <https://doi.org/10.1016/j.tmp.2016.07.010>
- Shaw, G. & Williams, A. M. (2004). *Tourism and tourism spaces*. Sage.
- Souza, M.; Klein, A. L. (2019) Rural ruralidade, pluriatividade e multifuncionalidade do desenvolvimento rural. In: Souza, M. de; Dolci, T. S. *Turismo rural: fundamentos e reflexões*, UFRGS.
- Souza Neto, V. R., & Marques, O. (2021). Rural tourism fostering welfare through sustainable development: A conceptual approach. In *Rebuilding and restructuring the tourism industry: Infusion of happiness and quality of life* (pp. 38-57). IGI Global.
- Thiollent, M. (1992). *Metodologia da Pesquisa-Ação*. Cortez.
- Trigo, L. G. G. (2013). *A viagem: caminho e experiência*. Aleph.
- Urry, J. (1990). *The tourist gaze*. Sage.
- Urry, J., & Larsen, J. (2011). *The tourist gaze 3.0*. Sage.
- Valduga, M. C., Oliveira, R. L., Silva, M. S., & Tavares, B. C. (2021). Inovação e empreendedorismo no turismo rural: limites e potencialidades de novas tendências no cenário brasileiro. *Revista Acadêmica Observatório de Inovação do Turismo*, 15(3), 25-51. <https://doi.org/10.17648/raoit.v15n3.7144>.
- Ye, S., Wei, W., Wen, J., Ying, T., & Tan, X. (2021). Creating memorable experience in rural tourism: a comparison between domestic and outbound tourists. *Journal of Travel Research*, 60(7), 1527-1542. <https://doi.org/10.1177/0047287520951641>

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Manoela Carrillo Valduga: Definition of the research problem and objectives; Choice of the methodological procedures; Data collection and analysis; Drafting of the manuscript; Critical revision of the article.

Romário Loffredo de Oliveira: Definition of the research problem and objectives; Choice of the methodological procedures; Data collection and analysis; Writing of the manuscript; Preparation of tables, graphs and images.

Eduardo Silva Sant'Anna: Definition of the research problem and objectives; Choice of the methodological procedures; Data collection and analysis; Drafting of the manuscript; Preparation of tables, graphs and images; Formatting the manuscript to the journal's standards.

Osiris Ricardo Bezerra Marques: Data analysis; Drafting the manuscript; Critical revision of the article.