### Manuel-Ramón González-Herrera / Silvia Giralt-Escobar

# Tourism Experiential Learning Through Academic Field Trips in Higher Education: A Case Study of Copper Canyon (Mexico)

# **Abstract**

The professionalization of tourism education through experiential learning by fieldwork should be a key aspect of sustainable tourism development strategies. Based on the previous statement, the aim of this research is to develop a tourism learning experience through an academic field trip in Copper Canyon, with the purpose of generating a practical learning situation that serves as a strategy and practice of sustainability in the syllabus of Tourism Planning at the Autonomous University of Ciudad Juarez. An experimental methodology was implemented with students (n=26) from the advanced level of the tourism program that participated in the field trip, and mixed methods of empirical and theoretical types were applied. During the practical activity, the geospatial approach was applied to the study of the destination by interpreting the production process of the tourism space, as well as, the recognition of the tourism model, the inventory and assessment of tourist resources, and the analysis of impacts. The results allowed for comprehension and justification of the contribution of the practical learning process to the formation of tourism knowledge, by incorporating field trips to develop experiences through practical learning.

Keywords: tourism, sustainability, experiential learning, field trip, tourism space, Copper Canyon

# 1. Introduction

One of the most important factors for tourism business success nowadays is sustainability (Eshun & Tichaawa, 2020; Lopes et al., 2020), whose practical projection requires the development of adequate capacities for the new trends that are registering in the tourism market. For this reason, it is essential to understand this dynamic from the formative perspective of the human resources currently demanded by tourism, whose experiential, practical, and participative experience has become a mandatory requirement for the educational models and curricula for different university studies. The basic premise of this study is based on the assumption that the professionalization of tourism through experiential learning by fieldwork should be a key aspect of sustainable tourism development strategies. This is because graduates who have taken academic field trips during their training process graduate with a higher level of professional competency (Philip, 2004; Goh, 2011).

In relation to the research problem, the following interrogative statements were elaborated in order to find possible answers and to subject them to the debate of the specialists interested in the subject: What is the contribution of the practical learning process to the formation of new experiential tourism knowledge that responds to the needs of the profile of graduation? What value can be given to tourism learning through academic field trips? How can we design and implement a field trip to promote tourism learning through practice and guarantee the formative efficiency of the activities carried out?

Therefore, the objective of this research is to develop tourism experiential learning through an academic field trip in Copper Canyon, with the purpose of generating a practical learning situation that serves as a strategy

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and practice of sustainability in the Tourism Planning syllabus at the Autonomous University of Ciudad Juarez (Mexico). To this purpose, the construction of the general conceptual framework of this study is based on the integration of the pedagogical theory of experiential learning (Kolb, 1984), applying the methodology approach of problem-based learning (PBL) and the geographical theory of tourism space (Boullón, 2006; World Tourism Organization [UNWTO], 2007), applying the geospatial methodology focus to the study of a tourism destination.

As a result, the theoretical support for this research is integrated through the analysis of the teaching and learning process opportunities for tourism academic field trips in higher education, and the understanding of the academic fieldwork for tourism planning education. Based on these, the experience learning through the field trip in Copper Canyon is conceptualized, and the program to promote experiential learning through the academic fieldwork is exposed. Finally, the learning experiences through the academic field trip in Copper Canyon are presented, as well as a case study for the knowledge of this destination.

The strategies for the adoption of the results have been based on the dissemination of research conclusions among stakeholders, especially within the academic study program, for whom recommendations have been offered to introduce and use the exposed results. As for transferring knowledge and disseminating results, training workshops, papers for presentation at scientific events, and reports with the main findings have been elaborated. The main limitations have been the lack of resources of some students to join these field trips, the availability of time only during weekends, and the insufficient previous development of practical skills in students. In the future, this type of research should incorporate other topics of study, as well as strengthen and systematize the development of these activities within the educational program, evaluating the possibility of turning them into compulsory activities with assigned academic credits.

### 2. Literature review

# 2.1. Theoretical background of the research

As a background of this research, various theoretical and practical studies have been analyzed that have systematically examined the issue of experiential learning and its relationship with tourism field trips. According to Schott (2017), the pedagogical benefits of tourism field trips and practice experiences have long been recognized in the international professional context; this is related to the fact that a growing body of literature identifies the positive learning outcomes for university students that undertake some of their studies in the field (Sanders & Armstrong, 2008). For this reason, the learning experiences and learning outcomes of students represent a useful way to generate deep learning (Hayes et al., 2020), the contribution of exchanges among students, professors, hosts, and other stakeholders standing out as a strategic part of the educational process (Cater et al., 2018).

The recent increase in research on experiential learning for the field of tourism studies is recognized by Philip (2004) as an important option to satisfy students' knowledge and personal development. This author refers to the use of photographs for interpreting the travel experiences, as well as other methodological tools for understanding the students' view about their experiential learning during the field trips; this idea is reinforced by Sofield and Marafa (2019), who demonstrate in their study the use of visual anthropology and obtain participatory photographs to generate new tourism knowledge.

Philip (2004) also specifies that experiential formation helps students develop new perspectives and learning outcomes associated with the application of knowledge in real situations, and Haines and McClure (2020) note that being out in the field facilitates the students' involvement with community stakeholders. On the other hand, field trips with students of tourism make it possible to assess sustainability and community resilience and maximize experiential learning opportunities (Sofield & Marafa, 2019).

Researchers like Arcodia et al. (2014) have developed a relevant trajectory on experiential learning using academic trips. Through these investigations, the contribution of the studies to motivations and perceptions of experience has been proven, as well as the identification of three important factors for meeting expectations: social and professional connections, learning, and traditional yet engaging teaching (Arcodia et al., 2020). However, these authors recognize the need to develop more studies that expose practical findings within the contexts of tourism, hospitality, and event management (Arcodia & Dickson, 2009, 2013).

Wong and Wong (2009) add that the study of factors affecting students' learning and satisfaction is key for tourism field trips, which is why a positive impact on the overall student satisfaction is essential for their practical formation. Sebby and Brown (2020) indicate that experiential learning activities allow students to apply classroom concepts and achieve immersed levels of learning; therefore, it is necessary to recognize the importance of applied work experience. In the same order, Sanders and Armstrong (2008) point out that students' expectations and experiences related to field trips should be managed during all their formative stages, concluding that the approach for the field trips in tourism should be organized from a familiarization trip in the first year of study to fully autonomous field research at higher levels. In this way, the management of students' expectations and acquisition of knowledge and skills is a potential solution to practice-based knowledge and employability skill acquisition (Patiar et al., 2020).

### 2.2. Teaching and learning focus for tourism academic field trips in higher education

For several decades there has been a debate "(...) regarding the status of science, scientificity and the disciplinary nature of tourism, which has bogged down the advancement of the production of its knowledge, which has to do specifically with the epistemological question of tourism" (Castillo, 2011, p. 517). This author adds that the discussion about whether tourism is a science or a discipline "(...) has to do with the concept of science from which it starts to evaluate the production of its knowledge. The paradigms of knowledge of tourism are actually limited to a few disciplinary approaches that delve into certain theories, models and general concepts, giving rise to the disbelief that tourism can develop as a discipline" (Castillo, 2011, p. 535). In this regard, this research coincides with Morín (2010), who indicates that academic discipline is an organizational category within scientific knowledge and the idea of some authors such as Jafari (2005) that tourism is also accepted as a scientific discipline.

For this reason, it is necessary to know how to teach and communicate knowledge to students and how students learn during this education process. The education category is understood in this research project as the teaching and learning processes that take place in different institutions, being either formal, not formal or informal, in school or out of school. It is also recognized that there is a dialectical union between instruction and education, through which the students assimilate the content of the teaching while producing and developing their personality traits, which influence their feelings, development, emotions, values, and so on (Álvarez, 1999). Anyway, it is worth noting that in informal education, there are processes that can hardly be referred to as "teaching"; however, there are lessons learned.

For the development of this research, teaching and learning are considered conceptual categories that correspond to different disciplinary fields, although connected; so, they assume different objects of study. On the one hand, teaching is the action and effect of teaching or instructing through the transmission of ideas, principles, beliefs, knowledge, experiences, skills, and habits to another person who does not have them. During this activity, professors interact with their students in a given educational context, through which learning or knowledge acquisition is facilitated. On the other hand, learning is the process of acquiring knowledge, skills, abilities, attitudes, and values, which are generally obtained through observation, study, teaching, experience, or practice. Due to its complexity, there are various theoretical positions and conceptual meanings regarding its definition, methods, and applications.

Accordingly, the tourism education process could contribute to the formation and development of cognitive-instrumental, affective-motivational and axiological knowledge, and in this way, the student would assume a positive attitude and consequently responsible behavior in each tourism destination. In this regard, it is recommended that the following categories be integrated into tourism education: knowing (cognitive dimension); knowing how to do: procedures (instrumental dimension); wanting to do: motivation (motivational, affective dimension); knowing how to be: feelings (motivational, affective dimension); being willing to do: attitudes (attitudinal dimension); doing: behaviors (behavioral dimension); doing to know: multiplier effect (communicational dimension).

The aforementioned categories are related to the four pillars of education proposed by United Nations Educational, Scientific and Cultural Organization (UNESCO): learning to know, learning to do, learning to be, and learning to live together. It is therefore important to strengthen tourism education by incorporating the ten commandments of learning raised by Pozo (2008), which means the development of teaching and learning processes considering: (1) Interests and motives of the students; (2) Previous knowledge of the students; (3) Adequate dosage of the amount of new information presented in each activity; (4) Suitable appropriation of the basic knowledge that will be necessary for future learning; (5) Diversification of tasks and learning scenarios for the same content; (6) Design of learning situations based on the contexts and tasks in which the learners must recover what they have learned; (7) Organization and connection of each learning activity with the other one, so that the students perceive the explicit relationships between them; (8) Incentive among students to reflect on their knowledge, helping them to generate and resolve cognitive conflicts that arise; (9) Assignment of learning problems or open tasks, and the promotion of the cooperation among students for their resolution; (10) Training of the students to plan and organize their own work.

The modern theory of experiential learning was developed in the 1970s, despite having its antecedents in the postulates of J. Dewey. According to Seaman et al. (2017), this approach describes a historical trajectory that began with training practices in human relationships in 1946, when it came to be understood as a natural psychological process and a basis for pedagogical reforms. The main focus of this theory is learning through experience and self-initiative, based on which a need to learn is recognized, so that experiences become the center of the learning process; at the same time, this approach assumes that the creation of meanings from the lived experience is more important than the simple accumulation of information (Kolb, 1984).

Practical learning is a form of meaningful experiential learning in which the students interact with real-life experiences through direct observation and interaction with the environment, both personally, interpersonally, and in teamwork. For this focus, tourism field trips in higher education play an important role, while recognizing that experiential learning is very useful for business careers and programs such as those for business, accounting, and finance (McCarthy, 2016; Cea et al., 2018). Under this paradigm, professors develop the ability of their students to learn from their own experiences based on a conceptual, theoretical framework and well-planned objectives, leading to the development of skills that allow meaningful learning and possibilities of making decisions in new situations. On the other hand, the students assume an active role in understanding the reality in which they learn, reflect on the experience, conceptualize the experience, and apply their experiential knowledge to the solution of new problems.

This kind of practical learning is associated with this research project's problem-based learning (PBL) methodology. Such methodology involves learning based on the solution of real problems through student research and reflection activities as a way to acquire knowledge, skills, and attitudes, which is consistent with the approach of the theory of constructivism. Thus, the conceptual basis of PBL is related to the following types of learning (Gutiérrez et al., 2006): meaningful learning, active learning, student-centered learning, collaborative learning, learning based on discovery, and critical reasoning.

The problem must be presented to students to serve as the basis for the discovery of new learning or to identify scarcity or needs that are given at a specific time to find a solution for them. Therefore, this focus



favors the self-diagnosis of the learning needs as a way to construct learning and integrate knowledge. For the formulation of a good problem, it is necessary to take into consideration the following aspects: it should be controversial; reflect a real-world situation; arouse the students' interest and induce them to search for a deeper understanding; be consistent with prior knowledge of the students; give students the need to make decisions and make judgments; stimulate collaborative work for its solution; and conclude with an open question for which there is no right or wrong answer, but possible solutions (Gutiérrez et al., 2012, p. 51).

The main functions of the professor are to guide the students to be able to solve real-life problems based on detailed planning of each learning situation, motivate the students, and stimulate them to be able to apply their knowledge and identify new learning needs while promoting the development of communication skills and critical thinking. The students are the protagonists and are responsible for their learning process, work autonomously and collaboratively in solving problems and making decisions, while at the same time being able to evaluate their learning process and that of the rest of their classmates.

It is considered that "Higher education – especially education for management in hospitality and tourism-needs to adapt to the developments of the 21<sup>st</sup> Century. To prepare students for their future careers, a new approach to education is required (...) adopting problem-based learning as the basis for their education" (Rösner et al., 2016, p. 1). To achieve this purpose, these authors use the methodology known as "The Seven Steps of PBL", integrated into the following steps: clarify text and terms; define the problem(s); problem analysis; inventory of problems and solutions; formulate self-study objectives; self –study; and conclusion (Rösner et al., 2016, p. 4-6).

### 2.3. Understanding of the academic field trips for tourism planning education

According to Akinci et al. (2018), tourism education plays a central role in shaping individual and social change toward sustainability, as this focus has the target of improving skills that encourage students to reflect on actions realized by themselves. For this reason, the emphasis of this research is placed on sustainability as a paradigm on which tourism education is based as a way to achieve a better professionalization of students through the tourism planning subject, incorporating the development of knowledge and practical skills through field activities. In this sense, it is necessary to understand the scope and characteristics of field trips as a requirement for their implementation in higher education with sustainability criteria.

One of the most important characteristics of the work of the social disciplines is fieldwork (Sandoval, 2006). As a part of these academic activities, it is also possible to incorporate the study of tourism as a complex socio-economic and territorial-environmental phenomenon. It is important to mention that frequently in the literature and in the pedagogical practice of tourism, to conceptualize this type of activity terms such as fieldwork, excursion, field practice, field academic practices, local study, expedition, guided tours, walking, study trip, mobility trips, and student exchange travel, among others, are used. Next, three of the most used terms are revised to understand their definition and the common features that allow the establishment of regularities for their implementation. These conceptual variables to be discussed are study trips, fieldwork, and field practice.

In correspondence with the conception of study trips of AGTER, it is defined that:

"A study trip or itinerant workshop is composed of a series of field visits articulated with a precise global theme (...) it brings together a group of people, who are accompanied by facilitators, who organize and guide field visits. It is the set of visits that must be consistent and have a meaning in relation to the trip's theme. Visits can also be completed with more theoretical presentations, which aim to locate this activity in its historical, political, economic, social or cultural context" (Jamart, 2007, p. 1).

The objective is to provoke a reflection of the participants on the theme, the reality of the place visited, and their own reality. That is why,

"(...) taking a trip to see a very different reality and organizing deep reflection on what is being seen is much better than exposing a reality because one hears the words but cannot imagine how things are. The dialogue between all the people allows the generation of a learning process and a knowledge about what they are seeing and discovering until they come to reflect on their own reality (...) and it is much better when this discovery of other realities is not done alone, but together with other people who have other experiences" (Bombino et al., 2012, p. 16).

### On the other hand,

"fieldwork is understood as the approach to the reality that is intended to be studied; consists in going directly to the subject/object of study, the living data, the facts, to understand the situation and dynamics in which it develops. The information and data obtained directly by the learner can be acquired in many places, be they rural or urban, according to what needs to be examined" (Sandoval, 2006, p. 13).

At the same time, it is considered that field practice includes

"those visits or walks that we carry out with a well-defined didactic objective and that allow us to study objects or phenomena of nature, production or society in general, which without replacing the class as the fundamental form of organization of this process, offer multiple advantages and are perfectly linked to it" (EcuRed, 2015).

According to a group of sociologists from the University of Castilla La Mancha, field practice is a process in which students investigate (using techniques) directly (first hand) and face-to-face, submerging themselves (without prejudice) in the reality of a problem, a necessity, etc., in order to know it exhaustively, and to design and carry out a subsequent intervention (Gutiérrez et al., 2006).

In the guidelines of the Autonomous University of the State of Mexico (Universidad Autónoma del Estado de México, UAEM), it is recognized that academic field practices are academic activities that take place outside the university facilities, whose purpose is to expand the knowledge and skills acquired in a theoretical and experimental way. Their purpose is to deepen and complement the knowledge acquired in the classroom according to the contents of the plans and study programs (article 2). Their objective is also to contribute to the teaching-learning process, develop skills and reinforce students' knowledge, and promote knowledge through applied research (article 3). They integrate four modalities (article 5): guided tours; observation visits; field practices; and participation in scientific events (UAEM, 2011).

According to the general guidelines for conducting field practices of the National Autonomous University of Mexico (Universidad Nacional Autónoma de México, UNAM), this is an activity or set of activities that are carried out outside the facilities of the dependencies where students are enrolled to expand the knowledge and skills acquired in the classroom. Due to their academic nature and their relationship with the curricula, curricular field practices or extracurricular field practices may be compulsory or non-compulsory (UNAM, 2012).

In this regard, UNAM (2012) classifies the compulsory curricular field practices in three modalities that are: field practices and practical trips (duration greater than 24 hours); guided tours and observation (lasting no more than 24 hours), and classes outside of the classrooms and exercises (duration no more than 12 hours). Non-compulsory or extracurricular field practices are not directly related to the curriculum requirements, and they intend to broaden the knowledge and culture of students. These activities are developed in three modalities that are: attendance to competitions and sports activities (competitions); attendance at congresses, academic forums, seminars, exchange, and academic stay; and attendance to artistic and cultural events.

In different universities and other institutions, field practices may also be carried out abroad, at which time, for example, according to the Escuela Nacional de Antropología e Historia (ENAH) Field Practices Regulations,

it will be necessary to present the invitation letter of the project or locality where the practice will be carried out, a copy of the official document that authorizes the entry to the country (visa or passport) and a copy of the medical certificate that guarantees coverage abroad (ENAH, 2015), among other requirements, as the case may be.

The basic ideas contained in the above definitions allow the adoption for this research project of the concept of tourism field trips in Higher Education using the following traits:

- Organization form of the teaching-learning process which is developed through field/field visits/practices in a specific context, outside the university facilities, and with a defined didactic objective.
- Articulated activity to a specific theme related to the curriculum, which may be compulsory or curricular and non-compulsory or extracurricular.
- Way to reach formation/expansion of significant knowledge and discovery based on reflection, socialization, and group learning.
- Development/strengthening of professional practical skills.
- Dynamic and in situ understanding of objects and phenomena of nature, society or production.
- They can be carried out in different modalities, such as observation visits, interpretation activities, self-guided trails, and contemplative tours. They are developed with different duration so that they can be half a day, full-day, weekends, and one or more weeks, in which accommodation is required. They can have a local, regional, or international scope.

This kind of academic and research activity is of great importance since it contributes to the "preparation for the learning of the profession and should be aimed at enhancing the progressive approach of students (...) to the problems of the profession, a determining factor to achieve a trained professional" (EcuRed, 2015: n/p) based on an experiential and participative way in the field of tourism. For this reason, it is understandable that it must be a systematic, integrative, and contextualized activity in which students are faced with practical demonstrative situations of learning. This will facilitate that the contents be better assimilated or consolidated, allowing the generation and exchange of information and experiences.

The professor or facilitator must know the possibilities of applying each of the modalities of field practices or academic study trips in such a way as to select the most appropriate for the treatment of contents and the development of practical skills and professional abilities. The organization of small working groups, the creation of favorable dynamics among the participants, the guidance and supervision of the professor in charge, as well as the creation of commissions for the planning, development, and control of work will be very opportune. Participants should be engaged, involved, and accountable in meeting the objectives and activities of the trip from start to finish (Jamart, 2007).

# 3. Methodology framework

For the development of this research project, the deductive approach was applied since it started from the general theory of experiential learning through a field trip to the application in the case of a specific tourism destination. The study corresponds to the research of applied typology, being purposeful and formative, of qualitative reach, in which mixed information sources were used. The analysis and sampling unit corresponds to students of the Program of Tourism of the Autonomous University of Ciudad Juárez, studying the Tourism Planning syllabus. From the total of students, twenty-six were selected as the sample of this study, twenty of the feminine sex and six of the masculine sex, who voluntarily decided to participate in this semester's academic field trip according to their possibilities and interests. The study area for the field trip was Copper Canyon due to its high didactic and touristic potential, and the fieldwork was carried out through a stay in the destination for four days in May 2019.



The methodological operationalization of the research recognizes as the study dimension tourism education for sustainability through an academic field trip related to Tourism Planning, which is oriented to the development of knowledge, practical skills, and attitudes (Figure 1). For this purpose, an experiential learning activity was developed using the problem-based learning focus, which was applied to the study of tourism space in Copper Canyon, by interpreting the spatial dimension of the tourism development process using the geospatial approach the study of this destination. As a result of the formative activities developed during the academic field trip, the experiential tourism knowledge of students and a case study of Copper Canyon are presented as main learning outcomes, which contribute to the professionalization of tourism students and allow them to solve new problems and to make better decisions as future professionals.

Tourism education Tourism Research & practical reflection activities (teaching & learning) sustainability Learning Tourism planning syllabus inputs Knowledge Academic fieldtrip (n=26) Academic fieldtrip program Abilities Attitudes Tourism experiential learning **Practical learning** Solving tourism problems Study object: Tourism space. Focus: Experiential learning. Context: Copper Canyon. Method: Problem based learning. making decisions Learning situation: spatial Meaningful learning dimension of tourism. ■ Active learning Methodological focus: Geospatial ■ Collaborative learning approach. ■ Learning based on discovery Findings: · Critical reasoning Learning Practical skills & Formative dimension Outcomes professional competences Cognitive-instrumental, affective-motivational & axiological knowledge Control of the experience: **Experiential learning process:** Experiential Case study of 1. Pre academic fieldtrip. 1.Initial training verification. 2. During academic fieldtrip. 2.Intermediate training verification. tourism Copper 3. Post academic fieldtrip. 3. Final training verification. knowledge Canyon Professionalization of tourism students at the University

Figure 1
Flow chart of the research methodological process

Source: Own elaboration.

The methodological procedure that was followed covered the following stages: (1) Problem definition; (2) Literature review; (3) Research design, selection of the study area and participant subjects; (4) Design, review, and validation of research instruments; (5) Data collection, analysis, and interpretation; (6) Conclusions and recommendations. The main sources for obtaining data were bibliographic documents, pedagogical tests, observation sheets, photos and videos, interviews, discussion groups, and field trip reports.

During these stages, mixed methods of empirical and theoretical type were applied. Empirical methods allowed the intervention, recording, measurement, analysis, and interpretation of reality through participant observation, document analysis, activity product review, and group discussion. The theoretical methods facilitated the construction and development of postulates corresponding to the scientific theory, the regularities and essential characteristics of the phenomena, using analytic-synthetic, inductive-deductive, abstraction-concretion, and modeling methods. According to these methods, different techniques and conceptual procedures were applied, like descriptive techniques for locating, discriminating, and selecting data, extracting the information required from the selected sources, processing, and analyzing the data according to criteria and a measurement scale.

# 4. Results and discussion

# 4.1. Planning of learning experiences through the academic field trip in Copper Canyon

The experiential learning process was based on the development of the academic field trip through the sequence of three systematically addressed stages, which include the activities carried out by the students before, during, and after the field trip activities, these being:

- 1. Pre-trip or before starting the academic field trip. The planning and organization of the academic field trip and its logistics were carried out, with emphasis on the determination of the place to visit and the field stations to be used, the selection of the students that would participate, and the program to be developed with appropriate study tasks. In this stage, the theoretical self-preparation by the students regarding the contents to be treated was oriented, according to the self-preparation guide presented by the professor and the elaboration of the instruments to be implemented. Two background readings were assigned to the students in order to become familiar with the study context.
- 2. During the trip or development of the academic field trip. The study trip was carried out in correspondence with the scheduled travel itinerary. Each session began with a brief meeting for the organization of the day's work, the assignment of the study tasks and the techniques and instruments to be used, the methodology for the realization of the field visit, the subsequent cabinet work for the treatment of information compiled, and the workshops of reflection and debate on the daily work, which were recorded in order not to lose valuable information. Various techniques of fieldwork were used, such as participant observation, interviews, and surveys. At the same time, fieldwork tools such as the logbook or field record, field diary, observation guides, questionnaires, interview guide, portfolios, templates or field records, fieldwork guides, maps and sketches, worksheets of terrain, recorder, camera, compass, and GPS were used. Students realized the importance of concepts studied in the classroom, such as the tourist capacity to go across a suspension bridge, where they experienced new feelings and emotions (Figure 2).

Figure 2
Emotional experience on a suspension bridge in Copper Canyon



Source: Author photo.

3. Post-trip or after completion of the academic field trip. During this stage, the final reflection activities, socialization of experiences and knowledge, and transmission of experiential learning were carried out. It was based on the presentation of a report of the academic field trip, in which the new knowledge acquired during field activities was systematized, and new experiences were described. Finally, the students performed an evaluation of the activity developed to know the perception about the field trip and the levels of satisfaction with respect to it, and the recommendations for the continuous improvement of this practical activity.

### 4.2. Program to promote experiential learning through the academic field trip

The projected itinerary included five field stations: Creel, Cusárare, Divisadero, Copper Canyon Adventure Park, and Basaseachic National Park. Based on the methodology of The Seven Steps of PBL (Rösner et al., 2016, p. 4-6) and the requirements for the formulation of a good problem (Gutiérrez et al., 2012, p. 51), the field trip program was structured, following the next steps to promote practical learning as a strategy of experiential learning and sustainability:

- 1. Presentation of learning situation: What to do? Recovery of theories and conceptual variables. The professor arouses the students' interest and induces them to search for a deeper understanding. The theme of the field trip is presented: "Spatial dimension of the tourism development process in the Copper Canyon destination".
- 2. Definition of a problem that reflects the real-tourism situation in Copper Canyon based on the compatibilities/incompatibilities between tourism and territory. Identification of controversial opinions among students.
- 3. Formulation of self-study objectives by teams. The professor gives the students the need to make decisions and judgments and guides the students to solve real problems through students' research and reflection activities to acquire knowledge, skills, and attitudes.
- 4. Problem identification of tourism development in Copper Canyon. Methods and instruments to collect data: participant observation, interviews, surveys, inventory, conceptual modeling, etc.
- 5. Problem inventory through teamwork, emphasizing the relationship between tourism and space, with a focus on sustainability.
- 6. Teamwork through participant interpretation activities applying the geospatial approach to the study of the destination. The professor stimulates collaborative work for its solution, and students investigate using different methods and techniques directly, submerging themselves in the destination reality. The professor promotes the organization of small working groups, the creation of favorable dynamics among the participants, the guidance and supervision of the team's work, and the self-evaluation of the field trip.
- 7. Presentation of the results and conclusion. Formulation of a final open question to stimulate possible solutions.

The teaching and learning processes for this experiential learning activity were developed according to the following participant interpretation activities.

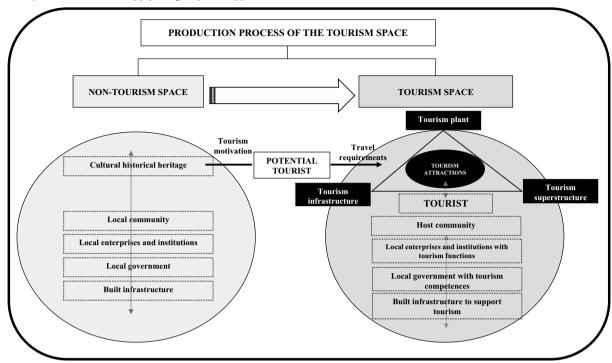
Activity 1. Interpreting the production process of tourism space.

To apply the geospatial approach to the study of the destination, students have to work with the following definition of tourism space:

"a physical space in which a tourist spends at least one overnight stay. It includes tourism products such as support services and attractions, and tourist resources within one day's return travel time. It has physical and administrative boundaries defining its management and images and perceptions defining its market competitiveness (...) and incorporates various stakeholders, often including a host community, and can nest and network to form larger destinations. Destinations could be on any scale (...)" (UNWTO, 2007, p. 1).

Based on the previous definition, students have to highlight the main conceptual words and model their relationships using a visual ontology, to be able to recognize all of them on the terrain. To promote the interpretation of the production process of the tourism space, students have to analyze and operationalize the conceptual model represented in Figure 3. It permits an understanding of the process of tourism valuation of the geographical space and the ability to interpret it in Copper Canyon.

Figure 3
Conceptual framework to apply the geospatial approach



Source: Own elaboration.

A methodology of the geographic approach in tourism planning was also presented (Artz & Baumann, 2009) to apply it during the fieldwork in Copper Canyon. To this result, a template was presented to students based on the following steps and considering that "By applying the geographic approach to help us solve complex problems, we can make better decisions, conserve resources, and improve the way we work" (Artz & Baumann, 2009):

- Step 1. Ask. What is the problem you are trying to analyze, and where is it located?
- Step 2. Acquire. What is the data needed to complete your analysis, and where can that data be found or generated? Identification of methods of collecting data and conducting the analysis.
- Step 3. Examine. This includes visual inspection, as well as investigating how the data is organized (schema), how well the data corresponds to other data sets and the rules of the physical world (topology), and the story of where the data came from (metadata).
- Step 4. Analyze. The data is processed and analyzed based on the method of examination or analysis chosen, which depends on the results hoped for.
- Step 5. Act. The results can be shared through reports, maps, tables, charts and delivered in printed or digital format.

Activity 2. Recognition of the tourism model: structuring scheme of the tourism space.

To recognize the tourism model in Copper Canyon, the emphasis was oriented to the social and environmental dimension of sustainable development (Figure 4) due to the vulnerability of its environments and the characteristics of the local communities. This analysis aims to identify and debate coincidences and divergences between the current scenario and the desired one. The students can apply knowledge related to the tourism

implementation process according to different typologies: planned vs. spontaneous, integrated vs. enclaved, endogenous vs. exogenous, and specialized vs. multipurpose. Based on the fieldwork, they have to draw the structuring scheme of the tourism space in Copper Canyon.

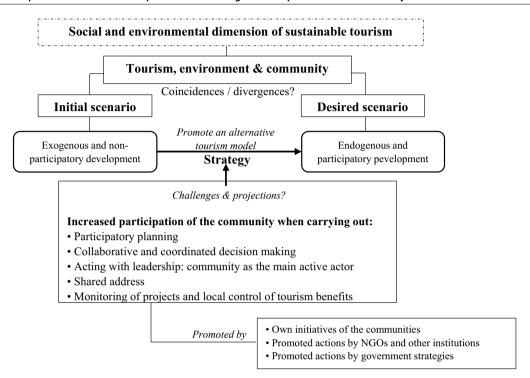


Figure 4
Conceptual framework to interpret the self-managed development of the community

Source: Own elaboration based on ideas of Valls (2004); Otero (2007); Monterrubio (2009); Pérez (2012); Ruiz (2015); Palomino et al. (2016).

Activity 3. Inventory and assessment of tourism resources.

For this activity, the students have to prepare a basic inventory of tourism resources (tourism resources inventory template) of the destination attending to:

- a) Types of tourism attractions and resources.
- b) Location. Accessibility and accesses.
- c) Description of the resources and attractions.
- d) Assessment of attractive resources: landscape value (Likert scale in which one means the lowest value and five the highest score) and landscape effects (percentage of perceptions in each category).
- e) Observations.

Taking into account the inventory table, each attraction was evaluated based on perceived indicators of the landscape values and the effects it produced on the visitor who interpreted it. The four best-rated tourism attractions are shown below (Table 1).

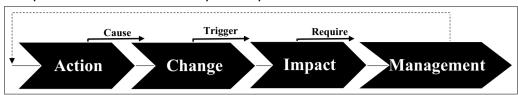
Table 1 Assessment of tourism attractions: landscape value and effects

Assessment of tourism attractions: landscape value and effects							
Tourism attraction	Landscape value	Landscape effect					
Basaseachic Waterfall	Functional: 5 Aesthetic: 5 Environmental: 5 Symbolic: 5 Added: 4.5	Spectacular: 96.2% Very nice: 3.8% Nice: 0.0% Moderately pleasant: 0.0% Unpleasant: 0.0%					
Copper Canyon tourist viewpoint	Functional: 5 Aesthetic: 5 Environmental: 5 Symbolic: 4.8 Added: 4.5	Spectacular: 96.2% Very nice: 3.8% Nice: 0.0% Moderately pleasant: 0.0% Unpleasant: 0.0%					
.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,							
Arareco Lake	Functional: 5 Aesthetic: 5 Environmental: 5 Symbolic: 4.6 Added: 4.6	Spectacular: 92.3% Very nice: 7.7% Nice:0.0% Moderately pleasant: 0.0% Unpleasant: 0.0%					
Route to Cusárare Waterfall	Functional: 5 Aesthetic: 4.9 Environmental: 4.8 Symbolic: 4.3 Added: 4.1	Spectacular: 84.6% Very nice: 15.4% Nice: 0.0% Moderately pleasant: 0.0% Unpleasant: 0.0%					

Activity 4. Impacts of tourism development.

According to the previously compiled information, students must identify the most significant impacts they perceived and documented during the fieldwork. To this purpose, they have to apply a methodology model to interpret the impacts on tourism based on the impact chain represented in Figure 5. The students have to make a list of actions that cause changes and impacts and finally recognize management's responses: corrective and preventive solutions.

Figure 5
Conceptual theoretical framework to interpret the impacts on tourism



Source: Own elaboration.

# 4.3. Findings related to the process of experiential learning during the field trip to Copper Canyon

The obtained results with this research correspond to two main products, which are presented as (1). The learning experiences related to the process itself, including students' motivations and perceptions, as well as factors affecting students' learning and satisfaction; and (2). Outcomes of experiential formation and the positive academic benefits for the participants. This combined analysis permitted the maximization of experiential learning opportunities through the field trip.

According to the stages confirming the Life Cycle of Tourism Trips, the pedagogical process of the academic field trip in Copper Canyon was verified in three stages. The assessment of experiential knowledge was based on the principles of the evaluation focused on experience (Laferriére, 1999; Mancilla et al., 2012), which involves a transformation of experience into knowledge. Based on this, a dialogue between the concrete and the abstract is produced, a coming and going from action to reflection and awareness of experience (Laferriére, 1999), returning information to all interested parties. Qualitative evaluation criteria were applied, recognizing the socialization processes of the participants' evaluation, feedback, and self-evaluation. The assessment of results during each stage was established based on the cognitive-instrumental, affective-motivational and axiological knowledge dimensions.

- 1. Initial training verification. It consisted of a participatory diagnosis based on a set of indicators related to the thematic axes to be addressed in the academic field trip, after concluding the topic studied in the classroom of: geographic orientation, use of the destination map, delimitation of the tourist space, integration of the components of the destination, modeling of a visual basin, criteria for the interpretation of the landscape, and factors to consider for the identification of environmental problems. This initial diagnosis verified the low level of development of practical skills and experiences in relation to the tourism destination and the topic of study (Table 2).
- 2. Intermediate training verification. Execution of the activities and actions included in the planning. It was found at this stage that the students were more excited and stimulated when comparing the previous knowledge with the new learning experience, and at the same time, the result of the assessment was better (Table 2).
- 3. Final training verification. This covered the time after the trip and was developed in order to recognize the effects produced during the experience of which they were part in correspondence with the instruments elaborated, the methodology designed, and the field activities implemented. This allowed corroboration of the changes that took place through participant observation, dialogues with students, debates in work sessions, informal interviews, review of activities carried out, self-assessment, the study of the product of the activity (schemas, drawings, templates, etc.); the results were analyzed individually and in groups. This stage shows favorable results (Table 2). It denotes the effectiveness of the activities carried out if the students' high and medium level of experiential knowledge is taken into consideration.

**Table 2**Verification of the pedagogical process during the academic field trip

Practical tourism knowledge	High	Medium	Low
Initial training verification	-	30.6%	69.4%
Intermediate training verification	50.0%	26.9%	23.1%
Final training verification	73.1%	23.1%	3.8%

At the end of this stage, a rubric was prepared using the recommended categories to integrate into tourism education, which was implemented through an individual self-evaluation activity with all the participants in the field trip, establishing a comparative scenario between the before and after moments (Table 3). As can be seen, the final evaluation for each indicator was very high, indicating the instrumental and communicational dimensions as being areas to be improved.

Table 3
Qualitative assessment of the categories of tourism education

Indicators	1	2	3	4	5
Knowing (cognitive dimension)					
Knowing how to do: procedures (instrumental dimension)					
Wanting to do: motivation (motivational, affective dimension)					
Knowing how to be: feelings (motivational, affective dimension)					
Being willing to do: attitudes (attitudinal dimension)					
Doing: behaviors (behavioral dimension)					
Doing to know: multiplier effect (communicational dimension)					

As a result of the experiential learning process:

- Students were able to participate in the planning process of their own learning experiences, developing memorable experiences in the three key moments of a tourism field trip (before, during, and after the field trip activities).
- Students were able to interact and collaborate among them during the performance of the activities contained in the program to promote experiential learning through the academic field trip and to solve practical situations related to their future profession.
- The practical contribution of the study carried out by the students during the field trip allowed the collection of data related to the study polygon, whose analysis and interpretation allowed the construction of a case study that contributes scientific information to the knowledge of this site and the relative decision-making process of tourism.

The most outstanding outcomes of experiential learning that benefit students' formation were: application of planning knowledge in real situations; students' satisfaction with the practical knowledge and personal development; interaction with community stakeholders; sustainability and communities' resilience assessment; and additional skills to plan and project touristic situations. Taking into consideration the appropriation of new knowledge, skills, and attitudes, the students identified the following to be the main personal and academic experiences with impact on their future professional activity:

- 1. To sleep in a rural hotel in contact with nature.
- 2. To appreciate the beauty of nature: sunrise, sunset, the sound of animals, the movement and smells of natural vegetation, the descent of water currents through rivers and streams.
- 3. To taste typical food and drinks of the region.
- 4. To walk on a mountain ecotourism trail.
- 5. To cohabit with indigenous and rural communities in the mountains.



- 6. To explore the attributes of the visited tourism destination: geographical and perceptual delimitation, tangible components (resources/attractions, infrastructure and equipment, human resources, tourists, enterprises, and host community), and intangibles (knowledge or know-how, comfort, quality, security, brand, information, prices, accessibility), vertical and horizontal structure, dynamics, functioning, and hierarchy, as well as production and consumption factors.
- 7. To draw the tourism potential of a visual basin: observer's point, senses, planes, and distances.
- 8. To have a sensation of adventure and adrenaline practicing outdoor activities in Copper Canyon Park.
- 9. To live the history and past culture in a magical town.
- 10. To feel pride in studying tourism.

# 4.4. Case study of Copper Canyon as a final product of the field trip

The case study presented is a valuable tool that allows the synthesis and sharing of lessons learned from the experience developed in order to create new knowledge and improve practice, thus serving as a basis for reflection, discussion, and exchange. According to the information collected and systematized, both during the documentary research stage and in the fieldwork, the main findings obtained were integrated into a didactic case study that summarizes the tourism development at the Copper Canyon territory from a geospatial focus. From a methodological point of view, the analysis and debate of the theory that serves as a base for this case study were carried out, identifying: concepts, assumptions, and perspectives that permit the confirmation of the proposal (Table 4). This case study was presented to students who were unable to participate in the field trip, along with a video prepared by the teams that stayed in Copper Canyon.

Table 4
Theory operationalization for the analysis of the case study

### Discipline: Tourism planning

#### Theme: Tourism spatial dimension for the planning process at the destination level

- 1. **Theory**: Tourism Space. This theory is useful since it permits understanding the process of tourism value enhancement of the geographical space as a territorial unit of analysis and tourism planning in different time scenarios.
- 2. **Concepts**: the concepts that can be recovered from this theory as a starting point for the analysis are: the delimited area (physical, perceived, administrative), tourism attractions, tourism plant, tourism infrastructure, tourism superstructure, host community, tourists, and stakeholders. Related to these categories the supply, demand, and tourism flow constructs are considered, as well as the factors of tourism production and consumption.
- 3. **Assumptions/methodology**: the underlying assumptions of this theory and its concepts allow for the interpretation of the production process of tourism space, applying the methodology of the geographic approach to tourism planning, to recognize the structuring scheme of the tourism model, to make the inventory and assessment of tourism resources, and to identify the impacts of tourism development.
- 4. **Understanding the problem**: applying the geospatial approach to the analysis of the tourism destination offers a different perspective to this case study since it allows for an understanding of the tourism phenomenon in the temporal-space dimensions on a local scale. This facilitates understanding the multiple problems derived from tourism exploitation, such as compatibility of uses and functions, use of landscape resources, generation of development opportunities, and analysis of economic, socio-cultural, and territorial-environmental impacts.

### ■ The production process of tourism space

The geographical space under study corresponds to Copper Canyon (Figure 6), a landform that covers six municipalities (Ocampo, Bocoyna, Uruachi, Urique, Batopilas, and Guachochi) located in the Sierra Tarahumara, belonging to the State of Chihuahua. It borders the States of Sinaloa and Sonora and integrates a spectacular set of canyons of great geomorphological and geological value. The main ones for their tourism attractions correspond to Urique, Sinforosa, Batopilas, Candameña, Chínipas, Oteros and Copper Canyon. In general, it presents a subtropical climate influenced by the altitude and expositional disposition of the slopes, characterized by higher temperatures from May to July (summer) and rains from June to September. The flora is constituted by forests, in which trees and shrubs dominate.



Figure 6
Location of the study area



Source: Own elaboration based on Map Data (2018), Google INEGI.

This geographical space contains the two largest waterfalls in Mexico and a large number of attractions, among which the towns of Batopilas and Creel stand out, included in the Magical Towns Program of the tourism secretary; at the same time, this destination concentrates the largest number of indigenous populations in Mexico, which preserve their culture, customs, and traditions. The population comprises mestizo and Tarahumara composition groups; this last group is divided into three ethnic groups (Rarámuri, Tepehuan, and Pima). Its fundamental economic activities are agriculture and cattle raising. Tourism is a secondary or irrelevant activity for autochthonous population groups since it is mainly taken advantage of by local and external mestizo populations, for which reason a more exogenous than endogenous development is generated, in some places being spontaneous, open, and lacking specialization.

### General characteristics of the tourism model

The main areas of tourism gravitational concentration and flow orientation in its territorial structure are Divisadero, Creel, Copper Canyon Adventure Park, Basaseachic, Arareco, Cusárare Batopilas, Guachochi, and Cerocahui. However, the articulating axis of the destination is the corridor that forms the Chihuahua - Pacific Railway (CHEPE) and a network of paved mountain roads that unite different points of social, economic, and tourism interest. The regional space registers forestry, agriculture, mining, and tourism as main activities, which in many spaces enter into functional conflicts, generating incompatibilities of use that condition environmental, social, and economic impacts.

As part of the activities of local communities in their contribution to local tourism, crops and the sale of handicrafts stand out. However, a low level of participation in these activities is appreciated. In general terms, these communities do not have inclusion in tourism, except for the Rarámuri, who make handicrafts for sale. However, the activities that they carry out actually as sustenance for their home are basically rural, since the support to the homes is based on agriculture. This has no explicit relationship with the tourism development of any particular canyon.

Such development reflects that differences among the canyons and the municipalities in which tourism is inserted are remarkable, and the disparity in infrastructure is contrasting. From a tourism perspective, Urique and Copper Canyon are the most developed; these have a greater amount of infrastructure and tourism attractions. Some of their hotels and restaurants are recognized with quality standards, and they are more responsible with nature. The Sinforosa Canyon continues in order of tourism significance. The Candameña,

Batopilas, Chínipas, and Otero Canyons have less tourism development, their infrastructure is simpler, and they do not have quality standards that certify their social or environmental projection (at least published).

### • Inventory of attractions and tourism plant

The inventory of regional attractions showed a noticeable diversity of resources with a high potential for use due to the region's great biodiversity, geodiversity, and socio-diversity, which is far from an optimal tourism value. The basis of attractions is associated with the spectacular panoramic views offered by the deep canyon system, the mountains, waterfalls, rivers, lakes, hot springs, and montane forests, as well as the mestizo towns -magical towns- and the indigenous communities whose origins are dated from the 17<sup>th</sup> Century. It should be noted that the tourism valuation of the last-mentioned resource has not been constituted until now as a central motive for the attraction and maintenance of tourism flows.

The tourism plant is made up of 118 accommodation establishments of different types and categories. They are named by the terms hotel, boutique hotel, hostel, ranch, hacienda, cabin, inn, mansion, villa, motel, resort, inn, ecohotel, lodge, among others; which denotes a lack of standardization to distinguish one type of accommodation from another, especially in terms of quality. The four- and five-star hotels are scarce, with the lower categories prevailing, the non-classified establishments or the self-classified ones not fulfilling the established requirements. The tourism system is made up of 57 restaurants and eight tourism information modules. The nucleus of greater development is Creel with 38 lodgings, followed by Divisadero with 14; Guachochi with 11; Batopilas with 9; Cerocahui with 7; Basaseachic with 5. Only 18 have been recognized with the M Distinctive, one with environmental recognition, representing 22.4% of the total.

The tourism activities that are practiced go from mountain modalities to ecotourism. The Basaseachic Waterfall National Park (Protected Natural Area since 1981) and the Copper Canyon Adventure Park are integrated into the area. This last started in 2005 with eco-tourism-type investments, but it was not until 2009 that the project with Doppel-Mayer began so that the park finally began to operate in September 2010 fully. This tourism development corresponds to sports facilities for the outdoor adventure segment. It has a 3,000 m long cable car without intermediate towers (the third-longest in the world according to its type); a circuit of 7 zip lines and two 5 km suspension bridges throughout its length, making it one of the largest in Latin America; a 2,550 m long Zip Rider (saddle-type harness, with a flight over the ravine of up to 135 km per hour); via Ferrata (Rappel, semi-climb, Tarzan jump); bicycle route (indigenous project subsidized by the State Government); all-terrain vehicle or ATV rides; and guided walks to the Bacajipare community.

### ■ Impacts of tourism development

The tourism development project of Copper Canyon Adventure Park impacted areas inhabited by the Rarámuri population, which unequally introduced the direct contact of the indigenous community with tourists of diverse origins while inducing the dispossession of land belonging to the community (Almanza & Guerrero, 2014). Despite the benefit generated by the tourism activity in the region, it is not equitable since it is mostly assigned to the tourism activities that take place in this space, promoting the possible neglect of other traditional activities and social exclusion. Such is the case of the few hotels, restaurants, and attractions to which locals are integrated, both as employees of small businesses or as managers in some cases, which on the one hand is good, but on the other, it separates them little by little from their own community due to the differences that are beginning to show between those who work and those who do not work in tourism.

The reality that Rarámuri communities face is shared with diverse mestizo populations in the region, who feel neglect towards their needs. According to the reviewed literature, one of the consulted authors critically affirms that in order to increase tourism and demands towards this destination, the tourism planners forgot to involve the resident community from the earliest stages of the planning and execution of works, a reason why these communities wander aimlessly while carrying out the activities that they believe to be correct to

manage tourism, deriving negative effects of modernization for the area (Quiroz, 2008). Such a situation exerts strong control over destination management due to the ignorance by the local community of their roles and functions within the regional tourism system.

As for the positive impacts on local and regional development, there is a controversial economic spill towards the communities, an increase in business due to the arrival of visitors, and the use of the cable car to transport the inhabitants to the plateau in order to market their handicrafts, which is free of cost for the local residents. For such an impact assessment to be effective, it should be made in a participatory manner according to the real needs and expectations of these populations, a study that should be planned in the next stages of research. At the same time, some Rarámuri work in the park; in addition, it is open to indigenous people who wish to enter and market their artisan products, although up to the present, there is a limited and not self-managed participation. It is also reported that in the construction phase started in 2009, approximately 150 residents in the region were hired.

### Questions about the case study

- 1. How is the case of Copper Canyon related to your own context and interests?
- 2. What is the practical value of the theory of tourism space for the interpretation of the production process of tourism space in Copper Canyon?
- 3. What relationships can be established between the problems identified in Copper Canyon and the factors that have contributed to their existence? Create a causal relationship scheme.
- 4. What advantages do you attribute to the application of the geographical approach methodology in Copper Canyon tourism planning?
- 5. What are the implications and main lessons learned in this case study for your professional performance? Make your own summary of your personal reflection.
- 6. How could the Copper Canyon case be transformed into a future vision of sustainability? Reflect on new practices, paradigms, models, processes, strategies, and projects.

# 5. Conclusion

The literature review has been of great value for the findings in this research. It denotes the contribution of different researchers and institutions to the development of valid theories, models, hypotheses, assumptions, and methods related to the relationship between tourism and sustainability through the professionalization of graduates; the contribution of experiential learning theories to the planning and development process of field trips with students of tourism; and the benefits of tourism planning based on a real situation. The contribution of the literature also permitted the application of a holistic focus to integrate the economy, society, and the environment dimensions to promote a change toward sustainability. The process approach applied to the planning, execution, and evaluation of experiential learning through academic journeys was of great methodological value as it allowed the organization of the process in sequenced stages that permitted a better understanding of the outcomes.

Based on the integration of the pedagogical theory of experimental learning through problem-based learning and the geographical theory of tourism space applying the geospatial focus, it was feasible to recover and to integrate the theoretical and practical backgrounds, and to reveal the contribution of the pedagogical sciences to the practical solution of spatial problems of tourism planning education. This approximation to the study of a problem in tourism formation could contribute to the enrichment of the practical teaching and learning processes in higher education, particularly the didactics of teaching tourism. In this way, it is concluded that the professionalization of tourism through experiential learning by fieldwork is a valid strategy for tourism sustainability.

It was possible to find favorable answers to the main interrogative question presented as a guide for this research. The real contribution of the practical learning process to the formation of new experiential tourism knowledge in a group of students who took the Tourism Planning syllabus at the Autonomous University of Ciudad Juarez has been confirmed. This didactic strategy has contributed to the formation and application of cognitive-instrumental, affective-motivational and axiological knowledge, which has favorably impacted a positive attitude and consequently more responsible behavior observed during the field trip. All these results reinforce the students' professional capacities and contribute to the professionalization of the tourism sector once they enter the labor market; at the same time, the experience developed has built sustainable capacities for the future performance of these potential professionals in different scenarios.

The field trip as a method to deal with the practical reality of the study area allowed us to understand better the relationships between the sensory and rational components of knowledge, between theory and experiential practice through direct observation, and between the inductive and deductive pathways of tourist knowledge. At the same time, it was found that this method was effective in this case for the development of experiential learning of tourism students, reporting benefits in relation to the traditional learning process.

The formative efficiency of the learning situations carried out has been validated by the solution of real-life practical problems through student research and reflection, recognizing them as an effective way to acquire knowledge, skills, and attitudes. In this respect, the students were able to build new tourism knowledge based on prior knowledge, learning by doing through active interaction with the tourism space, being the protagonist and responsible for their learning, offering solutions to relevant questions and situations they had to face, working autonomously and collaboratively in solving problems, and showing appropriate cognitive levels of analysis, synthesis, and evaluation, making judgments and making decisions based on the case of the visited tourism destination.

According to the participant interpretation activities assigned to study the spatial dimension of tourism development in Copper Canyon, students were able to understand the production process of tourism space applying the geospatial approach, recognizing the tourism development model emphasizing the social and environmental dimension for sustainability, identifying important divergences between the current scenario and the desired one, classifying the main typologies of process-based tourism implementation, elaborating the inventory and assessment of tourism resources, and identifying the impacts of tourism development with its corrective and preventive strategies of management. This corroborates the high potential of experiential learning for tourism and hospitality careers due to its contribution to promoting practical learning as a strategy of meaningful learning and sustainability.

The use of conceptual, theoretical frameworks has been a valuable guide to experiential learning in a new situation where understanding the reality in which the students were learning was necessary. These favored the comprehension of the reality of Copper Canyon, permitted the conceptualization of the experience lived, and could potentiate the application of the experiential knowledge to the solution of new problems in any other destination where the students have to interact with real-life experiences through direct observation and contact with the environment.

Research of the practical implications is also associated with the high level of commitment showed by students to put in use the experiential learning acquired. It is due to their being able to realize the significant importance of this content and the role of tourism professionals in planning the tourist space as an alternative to producing compatibility between tourism and the environment where it takes place.

It is considered that the replicability of this study is feasible to extend to other contexts and the application of instruments used in this study. In such cases, it is necessary to evaluate the characteristics of the place to introduce these experiences to avoid extrapolation that may introduce errors due to differences in baseline conditions and possibly external factors influencing outcomes.



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