

# The Family Entertainment Park as a Living Laboratory: Research and Experiments for Better FECs

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## Abstract

*Family entertainment parks generate continuous behavioral data but often rely on intuition, vendor claims, or end-of-visit satisfaction surveys when deciding what to improve. This article proposes the Family Entertainment Park as a Living Laboratory: an applied research model in which operational gaps are converted into questions, hypotheses, prototypes, tests, measurements, interpretations, and iterative improvements. The model integrates observational research, surveys, interviews, journey mapping, behavioral analytics, pricing experiments, low-cost prototypes, and participatory co-design. It distinguishes routine operational analytics from formal research involving human participants, especially children, and emphasizes age-appropriate methods, privacy, consent, and institutional ethics where applicable. The core argument is that parks should prototype experiences before making irreversible capital decisions and should measure both behavioral outcomes and subjective experience. A living-laboratory approach can improve attraction design, programming, parent experience, progression, food, pricing, and community functions while also generating a cumulative evidence base for the family entertainment industry.*

## Family Entertainment Parks Already Experiment

Most FEC operators conduct experiments in practice, although they may not call them research. A game is moved to another location and utilization changes. A new party package is introduced and conversion changes. A weekend robotics workshop is added and a new customer segment appears. A lounge is redesigned and parents stay longer. A price is adjusted and demand shifts. The problem is not the absence of variation; it is the absence of a structured method for learning from variation.

Without a clear hypothesis, baseline, comparison, and measurement plan, an operator may attribute a change to the wrong cause. Attendance can rise because of weather, school calendars, advertising, a competitor closure, or a local event rather than the intervention itself. A Living Laboratory framework makes the logic explicit: Gap → Question → Hypothesis → Prototype → Test → Measure → Interpret → Improve → Retest.

The approach is consistent with a broader view of experience measurement in which subjective responses and behavioral outcomes should be analyzed together rather than collapsed into one satisfaction number (Godovykh & Tasci, 2020a). It also reflects the research orientation in Kid-Friendly World, which advocates combining surveys, interviews, observation, creative methods, mapping, participatory design, and family engagement to study child-friendly environments (Godovykh, 2025).

## Start With a Gap, Not a Technology

A common innovation mistake is to begin with a solution: 'We should add AI,' 'We need VR,' or 'We need a new climbing attraction.' Research begins earlier. What problem is the park trying to solve? Is it novelty decay, teen relevance, parent dissatisfaction, weak weekday demand, low birthday conversion, insufficient social interaction, or a developmental-value gap?

The FEC Gap Taxonomy offers one diagnostic vocabulary, but individual operators should validate which gaps exist in their own venues (Godovykh, 2026). For example, a park may believe parents want more activities when the actual problem is that sightlines are poor and supervision feels stressful. Another park may believe children are bored with trampolines when the actual problem is a lack of challenge progression. The first research task is problem definition.

## Prototype Before Building Permanently

Family entertainment parks are capital intensive. This makes experimentation valuable because many ideas can be tested temporarily before becoming construction projects. A proposed science zone can begin as a four-week program. A creator lab can begin with modular tables, tablets, and facilitated stations. A new birthday concept can be piloted with ten parties. A parent coworking area can be tested using movable furniture. A progression system can begin with printed cards before the operator builds a complex app.

The financial principle is option value. Temporary prototypes preserve the ability to learn and change direction. A successful prototype does not prove that the permanent version will succeed at scale, but it reduces uncertainty. A failed prototype can be valuable if it prevents a large irreversible investment.

How to Build the Best Activity Park emphasizes the importance of concept development, market research, site selection, unit economics, and performance measurement before and after opening (Godovykh et al., 2026). A Living Laboratory extends that discipline into continuous experience development.

## Measure Behavior and Experience

Behavioral data can reveal what families do: attraction participation, dwell time, queue abandonment, return frequency, route choice, food purchases, workshop attendance, membership retention, and cross-zone movement. Subjective data can reveal why: perceived value, boredom, confusion, excitement, pride, frustration, social connection, challenge, or comfort. Neither category is sufficient alone.

A highly used attraction may be popular or may simply sit in the most visible location. A poorly used creator station may have weak demand or may require too much explanation. A parent lounge may increase dwell time but not satisfaction. Mixed methods help separate these possibilities.

Experience measurement should also recognize timing. Immediate in-experience responses may differ from retrospective evaluations, and retrospective satisfaction may differ from later memory

and loyalty (Godovykh & Tasci, 2020b; Godovykh & Tasci, 2021). A strong FEC research design can therefore collect data during, immediately after, and weeks after the visit.

## Research With Children

Children are not simply small adult respondents. Methods should reflect developmental ability, language, attention, and power relationships. Younger children may communicate more effectively through observation, simple visual scales, drawing, storytelling, photo elicitation, or concrete choices than through abstract Likert statements. Older children can participate in interviews, mapping, prototyping, and co-design in increasingly sophisticated ways (Godovykh, 2025).

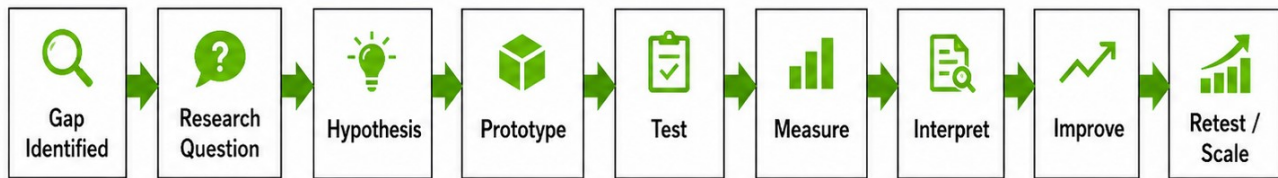
The ethical distinction between routine operations analytics and formal human-subject research matters. A park may analyze anonymized sales or utilization data for operational purposes, while a university study designed to produce generalizable knowledge may trigger institutional review and additional protections. Research involving children requires particular care regarding parental permission, child assent where appropriate, privacy, data minimization, and the avoidance of coercive incentives.

The principle should be conservative: the commercial setting should never be used to weaken ethical safeguards. When academic publication, sensitive data, biometric sensing, or experimental manipulation is involved, qualified institutional and legal guidance should be obtained.

## A Portfolio of FEC Experiments

The Living Laboratory approach is most valuable when it addresses questions beyond attraction popularity.

- Novelty: Does a rotating mission change repeat use of the same physical attraction?
- Progression: Do visible levels increase persistence and membership renewal?
- Parent experience: Does a coworking/lounge prototype change dwell time, satisfaction, or willingness to return?
- Co-creation: Are parent-child projects remembered differently from parallel play?
- Programming: Which weekly activities create repeat attendance rather than one-time trial?
- Food: Which menu changes increase contribution without adding disproportionate complexity?
- Pricing: Does a simpler package architecture reduce abandonment while preserving trust?
- Experience journey: Where do families become confused, fatigued, separated, or most emotionally engaged?
- Development: Which activities actually require planning, communication, creativity, persistence, or leadership?



| Methods                                                                                                                                                                                                                               | What Can Be Studied                                                                                                                                                                                                                    | Ethical Guardrails                                                                                                                                                                                                                                                                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>→ Observation</li> <li>→ Parent / child feedback</li> <li>→ Surveys and interviews</li> <li>→ A/B tests</li> <li>→ Dwell-time and route analysis</li> <li>→ Pricing and queue tests</li> </ul> | <ul style="list-style-type: none"> <li>→ Attraction use</li> <li>→ Parent participation</li> <li>→ Repeat visits</li> <li>→ Programming performance</li> <li>→ Food and pricing</li> <li>→ Birthday and membership behavior</li> </ul> | <ul style="list-style-type: none"> <li>→ Appropriate consent</li> <li>→ Privacy protection</li> <li>→ Minimal-risk design</li> <li>→ Child-appropriate methods</li> <li>→ University / IRB processes when needed</li> <li>→ Research should never compromise the visit</li> </ul> |



Every station, program, package, and layout change can be treated as a hypothesis.

## Research Agenda

A network of family entertainment parks could eventually create standardized protocols and benchmarks so that findings accumulate across venues instead of remaining isolated operator knowledge. Such a network would need common definitions, ethical standards, anonymized data practices, and careful separation between commercially confidential information and publishable research.

## Conclusion

Family entertainment parks do not need to know the answer to every design question before opening. They need a disciplined way to learn. Treating the park as a Living Laboratory converts day-to-day operational variation into cumulative evidence. The approach is especially powerful when it supports low-cost prototypes, direct observation, separate child and parent perspectives, and longitudinal measurement. Over time, a research-oriented operator can become better at improving the park because the organization learns not only what happened, but why – and whether the result can be replicated.

## References

- Godovykh, M. (2025). Kid-friendly world: How to make communities, destinations, hotels, events, and experiences more welcoming for children and their families.
- Godovykh, M. (2026). FEC gap taxonomy.
- Godovykh, M., Kovsharov, P., & Parker, A. (2026). How to build the best activity park: A complete guide for owners, operators, investors, and franchisees. KFW Publishing.

- Godovykh, M., & Pizam, A. (2023). Measuring patient experience in healthcare. *International Journal of Hospitality Management*, 112, 103405. <https://doi.org/10.1016/j.ijhm.2022.103405>
- Godovykh, M., & Tasci, A. D. A. (2020a). Customer experience in tourism: A review of definitions, components, and measurements. *Tourism Management Perspectives*, 35, 100694. <https://doi.org/10.1016/j.tmp.2020.100694>
- Godovykh, M., & Tasci, A. D. A. (2020b). Satisfaction vs experienced utility: Current issues and opportunities. *Current Issues in Tourism*, 23(18), 2273–2282. <https://doi.org/10.1080/13683500.2020.1769573>
- Godovykh, M., & Tasci, A. D. A. (2021). The influence of post-visit emotions on destination loyalty. *Tourism Review*, 76(1), 277–288. <https://doi.org/10.1108/TR-01-2020-0025>