

Acting Out Service Scenarios – A Method for Testing New Service Concepts

Tiina Jaatinen¹, Joni Salminen², and Liping Huang³

Please cite “Jaatinen, T., Salminen, J., Huang, L. (2013). Acting Out Service Scenarios – A Method for Testing New Service Concepts. In *Proceedings of World Academy of Science, Engineering and Technology*, Istanbul, Turkey, 20–21 June.”

Abstract—Specific problems of testing a service in a group include e.g. untruthful stated preferences by informants (reported behavior deviates from true behavior), group dynamics, and framing effects leading to results being influenced by the test setting. Some of these problems can be traced to lack of immersion which causes situations to be artificial. We report a method for testing service scenarios which aims to increase the level of immersion; if done effectively, it should increase the match between reported preferences and true behavior.

Keywords—service concepts, service development, service scenarios

I. INTRODUCTION

SERVICE development literature is in no lack of proposed methods, neither in academy or popular literature [1]-[4]. Clearly, researchers and practitioners pay a great deal of interest in the topic. So, why yet another method? In our view, there should be no limits to methods available to service developers, as there can be no definitive solution to a dilemma which is essentially a creative problem. Further, any improvements extending current service development methods are welcome. As noted by [5], “change, adaption and development are central to modern marketing.” Finally, the end-users (firms and informants) of these methods are interested in developing not only accurate, but interesting and engaging ways of capturing reactions of potential customers. In particular, acting has not yet been reported as a method for testing new service concepts among potential end-users.

News service development (NSD) is a later variant of new product development (NPD). Both share similarity in creativity and appreciation of innovation [6]. However, because services are highly personal in nature [7], their development also involves a high degree of human – as oppose

to technical – elements. However, digital services (e-services), are mediated by technological platforms accessed by computers and laptops. This limits the availability of direct feedback as oppose to face-to-face service encounters. In this aspect, testing new service concept approaches usability testing [8]. Typically, these testing scenarios require demos or other tangible evidence that the focus group members can assess and evaluate. Yet, it is possible to acquire immediate feedback from service concepts without tangible evidence. This is useful when no investments have yet made, i.e. the service development process is in the idea stage [9]. This can decrease the barrier of enabling users to participate in the actual development process, as the firm has made less commitment and has less sunk costs to respect. Thereby, enabling users early on may be more feasible than testing new services after the development [10].

Despite the obvious gains of direct feedback in testing service concepts with human subjects (e.g. [1]), there are many problems associated with them. For example, interaction situations are vulnerable to group dynamics such as groupthink and social desirability bias [11]. Equally, the researches may alter the outcomes by changing the test conditions, i.e. framing effects [12]. Finally, respondents may give inaccurate accounts of their past behavior, or their stated intentions will not always materialize into future action, as noted by psychology scholars [13]. Such shortcomings in soliciting feedback have given raise to technical modeling of service concepts, such as the service blueprinting method (e.g. [14]). We argue, however, that the testing of service concepts can be increased through immersion (for concept, see Adams, 2004[15]), in which the audience member is absorbed in the service context.

Framing service concepts as drama, played out in scenarios, serves this purpose well. Some degree of rigor should be aspired for, even in commercial, non-scientific research settings, or else results risk being unfruitful, even misleading. For example, [16] argued that effective service development is 1) objective, 2) precise, 3) fact-driven, and 4) methodologically based. These characteristics correspond to scientific ideals insofar as strive for credibility. In the following chapter, we will outline our experiences in using acting to extract valuable feedback for further service development.

¹T. Jaatinen is with the department of Technology, Environment and Business at the Turku University of Applied Sciences, Finland. (e-mail: tiina.jaatinen@turkuamk.fi).

²J. Salminen is with the department of Marketing at the University of Turku, Finland (e-mail: joni.salminen@utu.fi).

³L. Huang is with the Information and Service Management at the Aalto University, Helsinki, Finland. (e-mail: liping.huang119@gmail.com)

II. DESCRIPTION OF METHOD

The empirical context was cruising industry. The focal cruise line company is looking for new ways to develop their service offerings and participated in an ongoing academic project to discover new ways of using mobile services. The actual concept testing took place in a two-hour workshop organized by the “Kaleidoskooppi” research project, designated to validate the result of service design of a mobile application. There were 89 participants in the workshop, mostly male engineer students at their twenties.

We had actors performing 10 different scenarios in cruise environment and asked the participants to indicate their perception of usefulness of the service and their concerns regarding data security. Participants were also asked to indicate whether they would use the service in real life. The flow of events in the workshop is presented in Fig. 1.

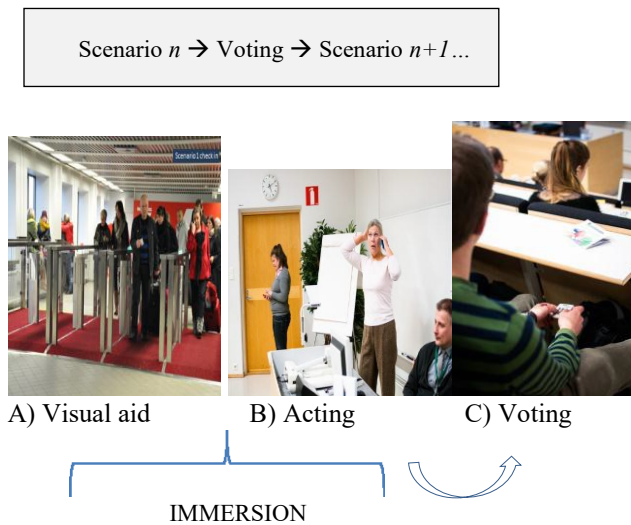


Fig. 1 Flow between scenarios and voting.

The scenario flow was as follows:

- 1) Audience sees a picture (see Fig. 2)
- 2) Actor acts the problem (for example, lost in the ship, looking for a map)
- 3) Actor acts the solution (looks the map from her mobile phone)
- 4) Audience replies to questions by clicking a clicker and instantly sees the results
- 5) Discussion completes the workshop.

The audience was presented with ten scenarios for potential use of the service. The scenario presentation was aided by actors consisting of volunteers from a local acting club. The actors presented 10 scenarios of 14 different services designed to cope with certain problems on cruise ships. After presenting a scenario, respondents voted by using their “clicker” devices. The respondents were asked to state their preferences in a 7-point Likert scale (refer to scenario questions in Appendix 1). A “clicker” device was used to capture the responses of the focal group. Since everyone answered separately, without knowing the answers of others, the results of the method are

unlikely to be influenced by group dynamics. Further, since the results are anonymous and cannot be traced back to the individual respondent, social desirability bias is less likely than if the researcher would perform a face-to-face inquiry.



Fig. 2 Example of scenario: check-in (see Appendix 2 for more scenario screens)

The workshop was concluded with a discussion section, with following guidance:

- 1) Comments/ Suggestions?
- 2) Why/Why not would you use the particular service?
- 3) Would you carry the device all the time with you onboard?
- 4) Do you have any wishes for more services?
- 5) Do you have any concerns regarding mobile app services?
- 6) Other questions based on the observations e.g. why particular service is unattractive or why does this service not raise security concerns.

The discussion section proved to be vivid and useful. After satisfactory immersion the audience was prepared to share their opinions at ease, although an auditorium is not normally a place where discussion flows. For example, regarding privacy/security, the participants did not concern over the location service, which was opposite to the assumption that cruise liners hold. Further, the audience came up with some interesting solutions. Based on results, the test group showed great concern over the security issue related to using mobile as payment tool. In this vein, the group agreed that adding additional digital signature would mitigate the concern over payment security. Overall, the session was successful and fruitful. Through the discussion and statistics, we managed to gain important insight on passenger experience in a virtual context on cruise ships.

TABLE I
ORGANIZATOR ROLES

Role	
1	organizing practical arrangements, handing out the clickers
2	host introduced the topic and guided the discussion
3	taking care of the technical part, operating the computers
4	documenting the event
5	observing the instant results and asked questions in the discussion session

The scenarios were designed to tackle the low points of cruises; with the goal of improving the overall cruise experience. From 25 ideas, final 10 were chosen for the workshop through a collaborative effort. Due to some degree of technological sophistication, setting up the workshop required specific expertise. The roles of the organizers can be seen in Table 1.

III. MAKING SENSE OF THE RESULTS

The material from the workshop consisted of pictures, video, audio (2 hours), and numerical raw data. Preliminary analysis of the data showed that 80% of the services' popularity levels are confirmative to authors' expectations. Authors had anticipated feedback not being popular service on the spectrum given the specific demographics of the test group. Given the range of this paper, detailed findings will not be discussed. However, we will note that the discussion section was particularly useful in eliciting explanations to stated preferences.

Fig. 3 depicts how initial assumptions were validated through the votes and interaction with the focus group.

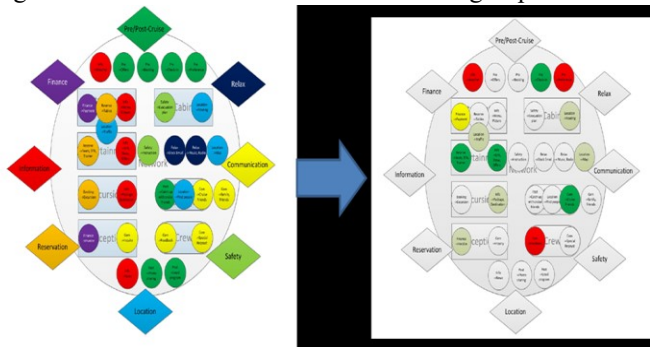


Fig. 3 Pre-test service spectrum and post-test validation

A visual display of assumptions prior and after the actual workshop was found as a useful way of illustrating the outcomes.

IV. ASSESSMENT OF METHOD

The method has several advantages, the following included:

- Minimal need for preparing the participants
- Instant display of results through response “clicker” technology. You can get significant data in a short period of time. Data can be extracted afterwards in excel sheet, which then can be made into various reporting graphs
- Inclusion of actors made the situation more realistic (immersion)
- Easy for everyone to participate
- Entertaining way to make research (“gamification”) or be part of it
- Participants have minimum influence on another’s response, consequently “make everyone’s voice heard” and eliminate peer pressure
- Combine the advantages of survey and individual

interviews; obtaining both statistical data and personal comments.

For example, data collection does not need to be uninteresting “ticking off boxes”, but it can contain interactive elements, as we have shown. The game elements may increase response rates also in other contexts. In any case, making the research situation easy, convenient, and inspiring is likely to evoke positive mindsets, nurturing creativity among participants. Obviously, it is a strict team effort. As noted by [17], new service development “relies on the expertise and cooperation of individuals working in teams during and after development.”

Further strength of the method in our case was that the audience was knowledgeable about the service system. However, at the same time this presents a weakness, especially if the application’s potential customers are expected to generalize beyond the focus group. Knowledge aided in familiarization among the respondents. In contrast, if the technology in question is less known to the focus group on average, there exists a learning curve that needs to be solved prior to receiving truthful feedback about the perceived usefulness of the service. This is a particular trait in testing high-technology services and is less of a concern in other types of services. Therefore, we recommend that the focus group be built match the target market of the application, thereby mitigating differences in tastes in the real market.

What could have been done better? Based on post-evaluation, three points of improvement emerge. First, the questions were perhaps too repetitive, so on second thought we would add more variety in them. Second, we would pose fewer questions per scenario. Finally, not all scenarios were clear to all participants, there were a few scenarios with very particular background information which was not communicated in acting. Thus a few answers were unexpectedly skewed. This error can be avoided by better scenario set-ups and in-depth communication between the author and actors.

Attention has to therefore be paid to creating unambiguous scenarios, or risk losing immersion.

V. CONCLUSION

In conclusion, the method is appropriate for modeling specific service scenarios. It is particularly useful for testing and validating service design in the early phase of new service development when the service is nonexistent. Acting is a supportive function that increases immersion which is a requisite for improving reliability of stated preferences when subjects have to use their imagination to think of actual situation in which they would use the service. Overall, the workshop was successful because the actors were able to present the scenarios as real-life situations, thereby increasing the level of immersion. It is essential for the participants to understand the content and context and services designated to solve certain situations, so that they can relate and give their honest opinions to help the designer to further develop the service concept. Acting helps the participants to understand

and relate to reality better, thus achieve higher level of immersion and voting facilitates voicing their opinion and data collection.

How is the method different from previous methods for service development? First, as other immediate feedback-based methods, we asked respondents to state their preferences. As noted, this is highly vulnerable to response bias, so that reported behavior deviates from true behavior [18]; however, a high degree of immersion should increase the informants' ability to creatively imagine the use of application, thereby decreasing the bias. Alternative methods include exhibiting a demo version of the application or giving it to use for a fixed period of time and monitor the use by a control program. However, these methods are not available in the idea/concept stage of service development. Comparing to textual accounts, acting is positively associated with engagement and immersion which, according our argument, play a clear role in eliciting useful responses.

Further research is needed to understand the boundaries of the method. For example, how well does it predict the likelihood of adoption? What are the usability implications when users are presented with the ready application? In other words, has the immersion been successful in predicting their positive attitudes to the service even after adoption?

APPENDIXES

APPENDIX I

SCENARIO QUESTIONS

Please indicate to what extent you agree with the following statements in each scenario.

(1 strongly disagree, 7 strongly agree)

1 2 3 4 5 6 7

1. This Mobile App will improve my cruise experience.
2. This Mobile App is useful for me.
3. I have concerns over privacy/security of this service.
4. I will use this Mobile App service.

APPENDIX II

SCENARIO SCREENS

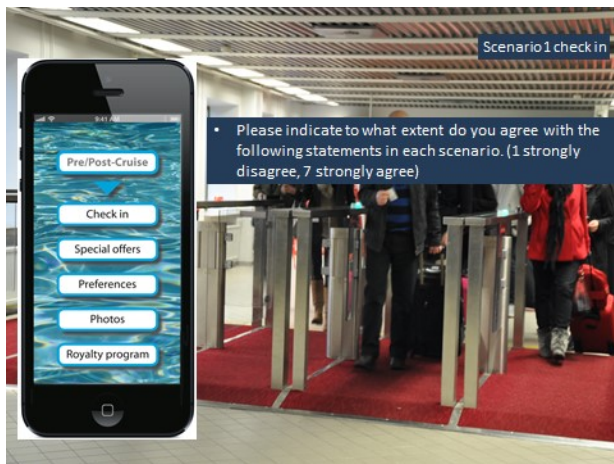


Fig. 4 Scenario 1: Check-in



Fig. 5 Scenario 2: Preference



Fig. 6 Scenario 3: Location

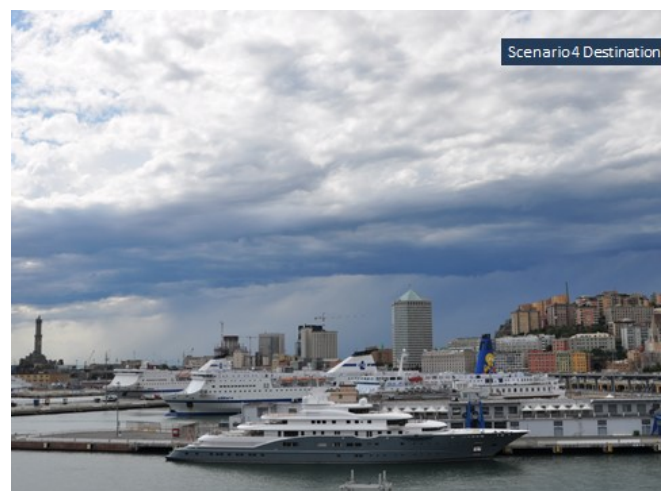


Fig. 7 Scenario 4: Destination

REFERENCES

- [1] Scheuing, E. E., & Johnson, E. M. (1989). A Proposed Model for New Service Development. *Journal of Services Marketing*, 3(2), 25–34. doi:10.1108/EUM0000000002484
- [2] Fitzsimmons, J., & Fitzsimmons, M. J. (1999). *New Service Development: Creating Memorable Experiences*. SAGE.
- [3] Gustafsson, A., Johnson, M. D., & Edvardsson, B. (2000). *New Service Development and Innovation in the New Economy*. Studentlitteratur AB.
- [4] Bullinger, H.-J., Fähnrich, K.-P., & Meiren, T. (2003). Service engineering—methodical development of new service products. *International Journal of Production Economics*, 85(3), 275–287. doi:10.1016/S0925-5273(03)00116-6
- [5] Cannon, T. (1993). New Product Development. *European Journal of Marketing*, 12(3), 217–248. doi:10.1108/EUM0000000004970
- [6] Trott, P. (2008). *Innovation Management and New Product Development*. Pearson Education.
- [7] Lovelock, C., & Gummesson, E. (2004). Whither Services Marketing? *Journal of Service Research*, 7(1), 20–41. doi:10.1177/1094670504266131
- [8] Barnum, C. M. (2001). *Usability Testing and Research*. (S. Dragga, Ed.) (1st ed.). Needham Heights, MA, USA: Allyn & Bacon, Inc.
- [9] Alam, I. (2002). An exploratory investigation of user involvement in new service development. *Journal of the Academy of Marketing Science*, 30(3), 250–261. doi:10.1177/0092070302303006
- [10] Matthing, J., Sandén, B., & Edvardsson, B. (2004). New service development: learning from and with customers. *International Journal of Service Industry Management*, 15(5), 479–498. doi:10.1108/09564230410564948
- [11] Morgan, D. L. (1996). *Focus Groups as Qualitative Research*. SAGE
- [12] McDaniel, W. C., & Sistrunk, F. (1991). Management Dilemmas and Decisions: Impact of Framing and Anticipated Responses. *The Journal of Conflict Resolution*, 35(1), 21–42. doi:10.2307/174202
- [13] Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: an introduction to theory and research*. Addison-Wesley Pub. Co.
- [14] Shostack, G. L. (1993). How to Design a Service. *European Journal of Marketing*, 16(1), 49–63. doi:10.1108/EUM0000000004799
- [15] Adams, E. (2004). Postmodernism and the Three Types of Immersion. Retrieved from http://designersnotebook.com/Columns/063_Postmodernism/063_postmodernism.htm
- [16] Shostack, G. L. (1984). *SERVICE Design in the Operating Environment*.
- [17] Johne, A., & Storey, C. (1998). New service development: a review of the literature and annotated bibliography. *European Journal of Marketing*, 32(3/4), 184–251. Anisotropy,” in *1987 Proc. INTERMAG Conf.*, pp. 2.2-1–2.2-6.
- [18] Furnham, A. (1986). Response bias, social desirability and dissimulation. *Personality and Individual Differences*, 7(3), 385–400. doi:10.1016/0191-8869(86)90014-0