Using Evaluation Grid Methods and Think Aloud Methods to Identify Undergraduate Students’ Image of a Desirable Bookstore

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1 Bookstore in Japan

- Recently in Japan, actual bookstores are struggling to survive. They can improve their service for understanding customer’s information behavior.

2 Early studies

- However, few attempts have been made to deal with the question.

3 Purpose

- We aim to identify the model of desirable bookstore.
- We opted to use two methods of qualitative approach. Two methods are Evaluation Grid Method (EGM) and Think Aloud Method (TAM)

1 Two methods supplement each other.
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**Evaluation Grid Method (EGM)**

EGM reveal the factors of evaluation and preference structures through interview process.

1. **Preparation of the comparative elements**
2. **Identifying the “Original Evaluation Items” (OEI)**
   - The interviewer choice two elements, ask which s/he prefers, and asks the reason for his or her choice.
3. **Deriving the “Relative Evaluation Items” (REI)**
   - The interviewer asks abstract or concrete question about OEI (Laddering).
Think Aloud Method (TAM)

TAM involves participants thinking aloud through interview process.

1. Participants were asked to verbalize their thought process as they carry out tasks specified by the interviewer.
2. Using recording protocol data, the interviewer categorize and organize the participant thinking.
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Collecting Comparative Elements

Collected pictures using the Google Image Search\(^2\). The search terms used were:

- syoten (bookstore in Japanese)
- honya (bookstore in Japanese)
- furu-honya (secondhand bookstore in Japanese)
- bookstore
- book center

We selected\(^3\) 20 pictures of 206 by random sampling.

\(^2\)http://images.google.com/
\(^3\)To reduce burden on participants.
Preparation for our experiment

Picture Example

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Experiment Days and Participants

The experiment was conducted over two days:

- Dec. 26, 2007
  - Four participants (two males and two females)
- Jan. 11, 2008
  - Three participants (two males and one female)
Experiment Process

The experiment was conducted in three parts:

1. Participant Training
2. Grouping pictures into five ranks
3. Laddering
Grouping Pictures into Five Ranks (1)

We asked the participant...

Let’s group the pictures into five ranks from most to least attractive. Please verbalize your thoughts in grouping.
Grouping Pictures into Five Ranks (2)

Well, the shop was crowded...  
The lighting is bright...

These spoken data were recording for TAM data.
Grouping Pictures into Five Ranks (3)

After grouping, we asked the participant prefers and the reason.

Why did you group the left picture is better?

The lighting is good!

After grouping, we asked the participant prefers and the reason.
## Laddering

You said “The lighting is good”, what does “good” mean to you?

It’s easy to find books when the lighting is bright.

We asked the participant concrete or abstract questions about the reason of the prefer.
Motivation

Method
- Evaluation Grid Method (EGM)
- Think Aloud Method (TAM)

Procedure

Result
- OEI and REI Detail (EGM)
- Repeated Evaluation Items (EGM)
- Relationship of the Evaluation Item (EGM)
- Data Categories in TAM Data (TAM)

Discussion
- Three Main Categories of EGM factors
- Correspondence of TAM and EGM

Conclusion
We collected 63 OEI and REI items. The main items as follows:

- “I think I fit in there”
- “good atmosphere”
- “not crowded”
- “the shelves are arranged so that it’s easy to find books”
- “can see the overall layout of the store”
Repeated Evaluation Items (EGM)

Repeated Evaluation Items (1)

Figure 1: The items were obtained from multiple participants
Repeated Evaluation Items (EGM)

Repeated Evaluation Items (2)

The eight items are obtained from multiple participants.

- “I can concentrate on looking for books, without distractions”
- “comfortable”
- “good atmosphere”
- “I can read books at ease”
- “I may be able to find my favorite books”
- “the aisles are broader than in other bookstores”
- “can see the overall layout of the store”
- “the shop stocks many different books”
Figure 2: Item relationship in EGM structure
Relationship of the Evaluation Item (EGM)

Motivation

Method

Procedure

Result

Discussion

Conclusion

Relationship of the Evaluation Item (2)

Abstract

I can concentrate on looking for books, without distractions

comfortable

the aisles are broader than in other bookstores

I can read books at ease

I may be able to find my favorite books

Concrete

quiet shop

not crowded

the store's lighting creates a good atmosphere

serene space

the lighting is good

I think I fit in here

cramped

books well ordered

more spacious than other bookstores

the bookshop is easy to move around in

can see the overall layout of the store

books are arranged on shelves at my eye level

able to see book covers

it stocks the specific books I want

easy to consult with shop clerk

shelves in the entrance area are low

there is an enquiries counter

the book collection is

the shop manager tries hard

the shop stocks many different books

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### Relationship of the Evaluation Item (EGM)

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#### Relationship of the Evaluation Item (2)

**Figure 3:** Item relationship detail (1)

- **I can concentrate on looking for books, without distractions**
- **quiet shop**
- **not crowded**
- **the aisles are broader than in other bookstores**
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Relationship of the Evaluation Item (EGM)

Relationship of the Evaluation Item (3)
**Relationship of the Evaluation Item (3)**

- more spacious than other bookstores
- the bookshop is easy to move around in
- can see the overall layout of the store

**Figure 4:** Item relationship detail (2)
All levels and eight major categories are as follows:

1. General
   - “feature of the bookstore”, “crowed display”

2. Relating to the books in the store
   - “the collection of books”, “the display of books”

3. Relating to micro elements of the store
   - “crowed with people”, “business shares the same space with another shop”, “shop concept”, “broad space”
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Three Main Categories of EGM factors

1. atmosphere (abstract level)
   - ex. “the aisle are broader than in other bookstore”, “comfortable”, “I can read books at ease”

2. book collection (middle level)
   - ex. “the shop stocks many different books”

3. bookstore layout (middle level)
   - ex. “the aisles are broader than in other bookstores”, “can see the overall of the store”

“atmosphere” category and “bookstore layout” category were connected:
Relationship of the Evaluation Item (2)

Three Main Categories of EGM factors

Motivation

Method

Procedure

Result

Discussion

Conclusion

I can concentrate on looking for books, without distractions

the aisles are broader than in other bookstores

I can read books at ease

I may be able to find my favorite books

quiet shop

not crowded

serene space

I think I fit in here

books are arranged on shelves at my eye level

able to see book covers

it stocks the specific books I want

easy to consult with shop clerk

the shop stocks many different books

the store's lighting creates a good atmosphere

the lighting is good

I think I fit in here

books well ordered

shelves in the entrance area are low

there is an enquiries counter

the book collection is

the shop manager tries hard

serene space

cramped

the lighting is good

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Relationship of the Evaluation Item (2)

Figure 5: Item relationship in EGM structure
Correspondence of TAM and EGM

1. “atmosphere”
   - TAM: “able to read books at ease”
   - EGM: “comfortable”

2. “book collection”
   - TAM: “the collections of books”
   - EGM: “the shop stocks many different books”

3. “bookstore layout”
   - TAM: “broad space”
   - EGM: “I can read books at ease”

The same factors is important of the two methods.
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Conclusion

1. There are three categories of factors on bookstore evaluation.
   1. atmosphere
   2. book collection
   3. bookstore layout

2. “atmosphere” and “bookstore layout” were connected. A perceived improvement in “bookshop layout” may result in a perceived improvement in “atmosphere”
Acknowledgement

This research owes much to the thoughtful and helpful comments and teaching of Professor Makiko MIWA and Associate Professor Kyo KAGEURA.