



## Constructing Consumers' Mental Model with ZMET for Online Foreign Language Learning Activities

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### ABSTRACT

The customers' particular perception of any product, service, or even brand is also the representation of mental models that underlie the customers' feelings additionally to consequently account for customer behaviour. To amass such customer insight, this article uses a vital customer analysis tool—the Zaltman metaphor elicitation technique (ZMET) to urge the perceptual and ideal meaning of customers in thinking levels that are different through visual picture and metaphor imagination, along with further incorporate the mean - end chain theory to produce the incorporated mental map for a team of consumers within the context of online language learning, therefore offering better insight into customers behaviour.

**Keywords:** Mental model; ZMET; Online learning; Customer behaviour

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### How to cite this article:

Yun Zhang. Constructing Consumers' Mental Model with ZMET for Online Foreign Language Learning Activities. Global journal of Economics and Business Administration, 2020; 5:32.

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## 1. Introduction

Numerous Chinese companies flooded into online foreign languages teaching market due to the its popularity within the recent past, which tends to make customers acquisition a survival element within the sturdy competitors. Confronted by the shift which the competition is way too fierce with businesses available for several years, present day market practitioners are already obligated to search out a deeper understanding of the link between consumers and brands, because that understanding is viewed as essential to the great results of the business endeavor (e.g. Mazur, 1995; "Sovereign Consumers" <sup>[1]</sup>. However, the existing customers feel harassed by the aggressive sales model <sup>[2]</sup>, they're reluctant to open their mind to the sales researchers, therefore realizing the real perception of consumers through regular research strategies becomes ineffective. It's recommended that marketers need to recognize the cognitive components, or even mental models, which underlie consumers' thoughts of individualized relevance. These mental models of consumers' interactions with the product or even brand founded and guide consumers' believing, their emotional reactions, and also their overt behavior about the merchandise or even brand <sup>[3]</sup>. The Zaltman Metaphor Elicitation Technique (ZMET) presents the potential to look at the interconnected constructs which influence thought and also behaviour, making use of videos in non verbal terms to access underlying subconscious thought process plus associations <sup>[4]</sup>. Thus, this study utilizes the Zaltman Metaphor Elicitation Technique (ZMET) suggested by Professor Gerald Zaltman in 1990s that comes with MEC to understand customers' cognitive notion of engaging with online foreign teaching activities and identifies what the mental drivers to their behavior are in order to develop constructs defining the customers that is applicable to this online foreign language market <sup>[5]</sup>. Highly effective marketing methods could be drafted contingent this study and this model can function as recommendations for later entrants to associated industries and also merchants on foreign language teaching companies.

This study gives valuable information for operations and businesses and also really helps to enhance competitiveness of companies.

## 2. Research Methodology

When making choices or even conversing with others, mental models are used by people to assess alternatives and also frame discussions. (Extracting, Representing, as well as Analyzing Mental Models). The mental model is a certain, powerful type of the psychological representation that is built by external experiences. The mental model was an abstract, analog representation. Researchers could infer and forecast an occasion, and then take appropriate action <sup>[6]</sup>.

Although mental models or cognitive structures are commonly assumed to be essential, underlying influences for almost all customer behavior, several researchers have exclusively examined them <sup>[1]</sup>.

### 2.1 The Zaltman Metaphor Elicitation Technique (ZMET)

Zaltman Metaphor Elicitation Technique is a blended non text language (images) as well as texts (In Depth Interview) to learn consumers <sup>[7]</sup>. This new consumer research method is proposed by Prof. Zaltman of the Mind of the Market Laboratory of Harvard University during the 90 's ZMET (Zaltman, 1997; Coulter and Zaltman, 1995) is a great tool to learn customers by eliciting metaphors which reveal crucial areas of the fundamental psychological model (Mapping Consumers Mental Models with ZMET). The ZMET is customized make use of respondent chosen pictures to get hidden cognitive as well as emotive themes through a concentrated investigation of customers' feelings and thoughts. ZMET is created to surface the mental models which get customer thinking as well as behavior and characterize these models in actionable ways with customers, metaphors <sup>[8]</sup>.

The ZMET takes into consideration the seven ideas of the Cognitive Psychology <sup>[9]</sup>. The 7 assumptions of ZMET are listed as below:

One) Most person correspondence is nonverbal. Two) No matter if ideas are eventually expressed verbally, the thought process remains nonverbal and pictures are always produced at the same ti-

me.

Three) Metaphor is a crucial component of thinking also it's a very useful mechanism to learn whether we effort to recognize the customer behavior and their feelings and thoughts.

Four) Images linked to sentiment usually supply us with substantial info, which could be a crucial element in the analysis.

Five) Consumers have the mental version which represents the knowledge of theirs and action found in the connected ideas (concepts, composition), depending on their industry knowledge.

Six) Our strong plus hidden cognitive system is accessible.

Seven) Emotions as well as explanation intermingle in the brains of customers

## 2.2 Mean-End Chain Theory

Many scientific studies into building mental models utilize a qualitative lens and thus there's a necessity for more analysis using diverse techniques to permit comparisons between quantitative results and qualitative findings. Presently, you can find studies that are limited into mental versions of online foreign language consumers. Therefore, this report utilizes the Zaltman Metaphor Elicitation Technique (ZMET) accompanied by mean - conclusion chain principle (MEC) to pack in this gap.

Mean - end chain theory (MEC) views customers as goal oriented decision makers, who decide to do actions which appear very probable to result in desired results.

Two normal assumptions are appropriate in this particular goal oriented framework. The first is that consumers get and use items based on the evaluation of theirs of the self relevant effects of these behaviours. They establish the self-releva-

nance of the effects based upon separately kept values, while inferring the valuation of theirs out of the products' attributes. These attributes, consequences and values (ACV) as well as, above many, the links customers establish between them, constitute the heart of MEC. The next assumption involves the amount of awareness and intent of consumption related behavioural decisions. Consumers are assumed making conscious and voluntary choices between alternate objects, that are instructed by the hunt of good effects as well as the avoidance of bad outcomes<sup>[10]</sup>.

## 3. Research Design

### 3.1 Participants

Twenty individuals finished the Personal Involvement Inventory (PII)<sup>[11]</sup>. where just fourteen of them had higher rating of Involvement Score. The fifteen extremely seriously involved on line foreign language learners or even the parents of theirs, clients of Shenzhen Niuwa Spanish Online Education Technology. Some customers had been the parents of the learners, and also the other respondents were learners themselves). Highly involved parents have been selected since they're the real buyers who made choice based on the preferences of theirs or perhaps partly their kids' suggestions. Additionally, higher involvement usually (but not always) correlates with good product knowledge as well as knowledge<sup>[1]</sup>; really complex respondents will probably have quite sophisticated and also complex psychological models surrounding the on line foreign words learning activities. The fourteen interviews have been video captured then transcribed to produce the information.

Table 1: Information of twelve interviewees

No.	Gender	Age	Occupation	Hours spend on online foreign language platform	Experience in online foreign language learning	PII score
1	F	32	Housewife	1-4 hours	More than 3 years	58
2	M	36	Clerk	4-7 hours	1-2 years	62
3	F	38	Teacher	More than 7 hours	2-3 years	61
4	F	32	Clerk	1-4 hours	2-3 years	53
5	F	39	Engineer	1-4 hours	More than 3 years	56
6	F	44	Business owner	4-7 hours	2-3 years	53
7	M	21	Student	4-7 hours	1-2 years	55
8	M	25	Student	1-4 hours	2-3 years	68
9	F	30	Clerk	1-4 hours	1-2 years	64

10	F	22	Student	4-7 hours	1-2 years	57
11	F	22	Student	1-4 hours	1-2 years	56
12	F	30	Clerk	1-4 hours	1-2 years	60
13	F	40	Clerk	1-4 hours	2-3 years	58
14	F	42	housewife	More than 7 hours	2-3 years	68

### 3.2 ZMET Process

Research process includes finalizing research objective and exploration questions, research strategy, literature review, utilizing PII scale to select interviewees, pre interview preparation, executing 10 steps of ZMET, information evaluation, constructing consensus chart, and also concluding the analysis.

Individuals have been told not to take photos or maybe pictures which explicitly illustrated the subject (e.g. business photos, advertisements, business logo, as well as the like), but represented metaphors of internet international language learning activities. Personal interviews (requiring around 2 hours to conduct) had been

scheduled around 3 days after the participants had been recruited and also briefed. The interview employed a guided discussion approach, instead a conventional structured or maybe semi structured interview. The calm and casual dynamics of the interview was regarded as a crucial element of lower likelihood of respondent fatigue. This was maybe compounded by the distant relative novelty of the ZMET technique, and also the deviation of projects undertaken throughout the job interview in adopting the ZMET interview procedure.

Interviews followed the 10 steps for the ZMET as outlined by Zaltman and Coulter <sup>[12]</sup>.

10 steps for the ZMET as outlined by Zaltman and Coulter (1995):

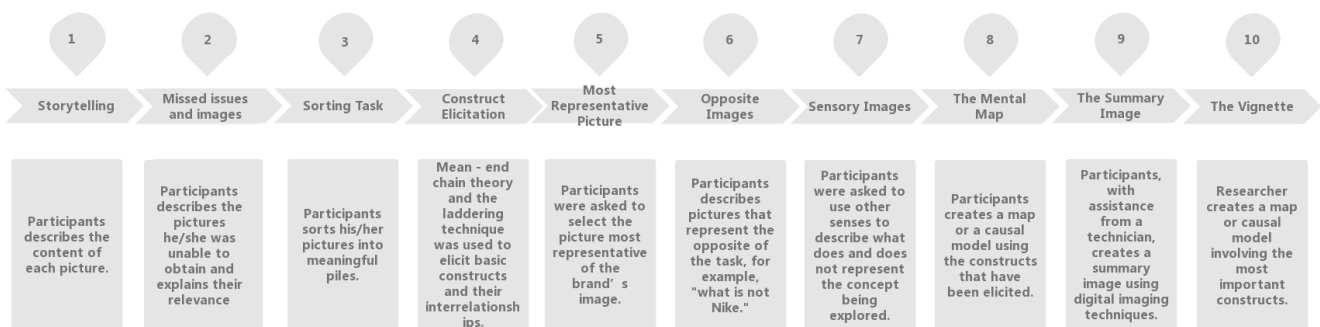


Figure 1: 10 Steps in ZMET method

### 3.3 Application of the ZMET Technique and Mental Model Construction

About one week before the interview, each one recruited participant was contacted as well as provided a set of directions. Initially, they had been asked to consider about the experience of theirs with internet foreign language learning. After that, they had been told to choose 8 to 10 pictures which stand for their feelings and thoughts about online foreign language learning and also take the images to the interview. Each and every photo is a metaphor which expresses one or more great meanings regarding mountain

biking. Stated in a different way, the ZMET procedure makes it possible for respondents to project their mental item onto the many photos and also express important cognitive (thoughts) as well as emotional (feelings) facets of that mental model. We compare input from different interviewees and identify similar and meaningful constructs. After data analysis, mutual constructs are identified <sup>[13]</sup>. This study then applies the selection principles for mutual constructs

## 4. Result

### 4.1 Mental Model Construction

Participants' thoughts, feelings, and behaviors have been examined based on means-end chain theory. Most interviews had been captured and later transcribed to allow empirical content analysis for accomplishing means end chains. Each means end chain links the interactions between

values, consequences, and attributes (A-C-V), it is able to in addition evaluate the emotion item attributes brings to the customers, what general value thinking<sup>[14]</sup>. The hyperlink is displayed in Fig. Tw

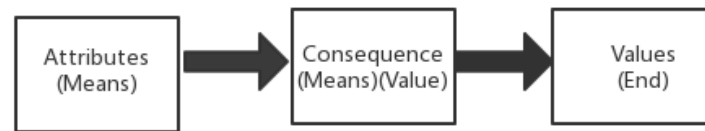


Figure 2: Means-end chain connects relations between Attributes/Consequence/Values

A means end chain links attributes of the online teaching business, effects of these characteristics to participants, and also the private values which the effects reinforce. Then, each participant's audio transcripts have been read discovering the associations between values, consequences, and attributes. A participant's sequence of attributes, consequences, and values (A -C-V) is known as a means-end chain and also presents a perceptual orientation of choice criteria. Lastly, a severe of A-C-V chains have been merged in concert to gain unique mental

models as well as the aggregate consensus maps of everyone in the group.

A consensus map belongs to the primary ideas displaying the linkages and all participants between the concepts as mirrored in the interviews of theirs. The consensus map (see Fig. 3) in this particular study resulted as a result of the linkages in between system attributes, personal values, and usage consequences. This consensus map provided more than 80 % of all constructs talked about by every one participant.

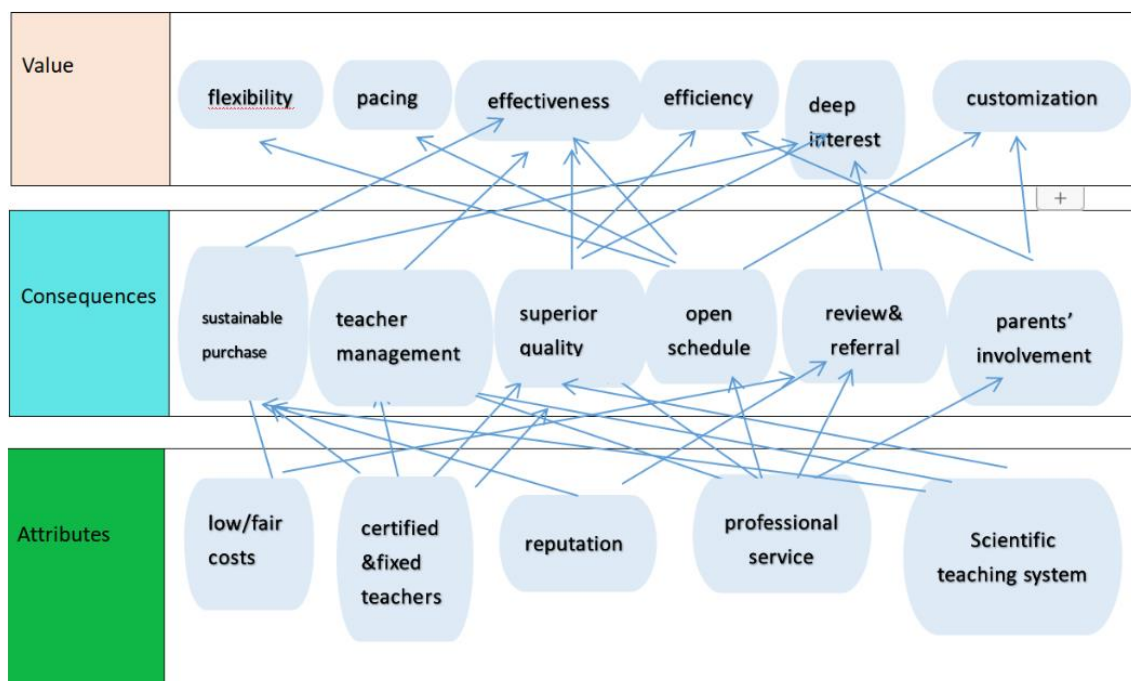


Figure. 3: The mental model of learners towards online foreign language teaching organizations

## 5. Conclusion

The ZMET method offers a great method for discerning consumers' cognition and also projecting consumers' behaviour. Therefore, research data have been collected with the ZMET strategy to know users' insights toward the involvement of theirs with online foreign language teaching platforms far more completely and more profoundly. The analytical results demonstrate that most of respondents in this particular study indicated the most crucial value of online foreign language teaching platforms involves its flexibility, pacing, effectiveness, efficiency, deep interest arousal, and customization. Additionally, respondents pointed out they cared on the subject of the life span of the businesses a lot and had noticed several potential risks. Nevertheless, they nevertheless carried on learning online with platforms. The primary cause is the open schedule as well as the superior teaching quality supplied by the online international language teaching platforms are in excess of perceived possible risks for many respondents. The benefits of internet international language teaching platforms include standard foreign language teaching outcomes, internalized foreign culture cultivation, imagination, unique learning pacing and self expression, and self efficacy.

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