



## Thinking through the Adjectives in the Early Phases of Design Process: The Case of Travel Suitcase Design Project

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### ABSTRACT

The future designers are expected to be equipped with the skills to be dreamers or storytellers who understand and express tangible as well as intangible values. In this study, the junior year industrial design students were asked to use the adjectives in the early phases of design process in a design education project about suitcase design for framing their design problems. Techniques enabling the use of adjectives for storytelling have been employed in a systematic and sequential manner as a method involving the brand analysis as product-oriented, persona as user-oriented and scenario building as an action-oriented expression technique. Five adjectives determined by the tutors were presented to the students of which they chose one. In the brand analysis, the attributes of the various characteristics of the brand in relation to the adjectives were examined, and the adjectives were diversified into related other concepts. In persona, while creating a fictional character, the adjectives determined and expressed the users' lifestyle characteristics and in scenario building a travel story. The storytelling techniques that adjectives are employed as a part of design thinking is observed to have the potential to contribute to them to understand and express tangible and intangible values of a product.

**Keywords:** early phases of design process, brand analysis, persona, scenario building, adjectives

### INTRODUCTION

Higher Education in different domains aims to train students to a certain level of expertise for professional life. A core responsibility of design education is to develop the thinking process of novice designers by supporting the transition towards the thinking process of expert designers (Kokotovich, 2007).

Designers generally gather and interpret the information regarding a design project and this interpretation has a significant impact on the following process (Björklund, 2013). Prior to idea generation, the design problem needs to be structured (Mathias, 1993; Ho, 2001; Restrepo and Christiaans, 2003). Problem structuring refers to the process of reflecting on the problem and the desired outcome (Simon, 1973). It requires one to draw on information regarding the problem domain in order to generate design ideas (Kokotovich, 2007).

As a result of his investigations comparing and contrasting the problem-solving strategies of expert and novice designers, Mathias (1993) found that novice designers omitted some important aspects in their process when compared to expert designers. In early phases, *Analysis of Problem Statement* (exploration of problem domain) is absent in the Novice designers' process. Cross (2004) calls this as "problem scoping" which is based on a focused or directed approach to gathering information regarding problem domain and prioritizing them. Experts spend more time on considering the information in the problem



domain and are more likely to incorporate them to their design ideas whereas novice designers tend to rush towards embodiments and justify their designs (Mathias, 1993).

In early phases of design process design students gain insights into a particular domain, to restructure their design problems and to generate design ideas accordingly. Enabling design students to focus early on the design problem, places them in a position to develop more considered responses to that design problem (Kokotovich, 2007). However; the students as novice designers have difficulty in this phase.

Therefore, it is important to support the design students for gaining experience the problem structuring process in their design studio projects through diverse methods and techniques. To structure their design problems, students need to define tangible as well as intangible values, emotions and experiences as the focus of design has evolved into more user and experience-oriented perspectives.

The future designers are also expected to be equipped with the skills to be dreamers or storytellers who imagine scenarios, express, age-proof, genre-proof stories, combine - recombine ideas, together with skills of doers who do sketches, model, draw, do detailing and also product managers who sell the product, explain how it will work, fit to market or sustain (Singh, 2019).

This study focuses on an education project conducted with the junior year design students in an undergraduate program of Industrial Design. There were 12 students that attended to this study. In this section, a brief introduction to how this method is born is given. The design problem delivered to the students was designing a suitcase for travel. In order to make the students to explore the problem area in the early phases of the design process more engaging, the tutor introduced a method involving the techniques that are introduced in this paper. The method involved brand analysis, persona and storytelling techniques in early phases of design process which are empathy and define phases.

After the design problem is introduced to the students with design briefs, a broad discussion regarding how to frame a design problem from a broad problem area to a more focused one. In general, the design problems are ill-defined (Simon, 1973) and the designers reframe it into a well-defined one within the initial phases of a design process. To frame a design problem there are several techniques and methods that designers employ (Kumar, 2011; Martin and Hanington, 2012). In this article, a method that brings together among them which are convenient for employing thinking through adjectives.

In the scope of the project shared with the students, the aim of the object to be designed which is a suitcase is travelling. It was asked to the students not to see the object as the main goal but to focus on the actions and tasks performed during travelling and to define the qualities of the travel according to the traveller, as the main goal of the project. Through the class discussions on the first day, the idea of employing a design method involving techniques where adjectives could be integrated was born in an ad-hoc fashion and then put into action with a systematic and sequential manner throughout early phases of the design process.

### **THE EARLY PHASES OF DESIGN PROCESS**

The early phases of design process involve the front-end of design activities where problems are fined and defined (Cagan and Vogel, 2002; Sanders and Stappers, 2012) and the identification of opportunities within the problem field (Wormald, 2011). Within a typical design process, products start as ideas that are then transformed into one or more prototypes, which eventually become products. The research that informs each of these phases differs in intent and in form (Sanders, 2005).



Companies have been seeking new tools and methods the intent of inspiration, uncovering new opportunities (Sanders, 2005) and strategic innovation (Wormald, 2011). Therefore, early phases of the design process have gained more importance (Sanders, 2005). Much of the collaboration between designers and anthropologists since the early 1980s for the benefit of product development industry has been connected with the development of design research methods associated within the fuzzy front-end of the design process and, methods and approaches used in the early process are often referred to as a front-end process (Cagan and Vogel 2001; Wormald, 2010; 2011). They include activities such as user research, brand management, trend surveys, and market analysis. These methods and approaches are often less strict and rigorous than some of the downstream design processes, hence, this front end is sometimes referred to as the "fuzzy front end" (FFE) which is a term used to describe activities that occur at the beginning of the design process, and in which the issues are regarded as rather ill-defined and unstructured (Deschamps and Nayak 1995).

In early phases of the design, process designers need to gain insights into a particular domain to generate creative and innovative design ideas (Turhan, 2013). The design literature about the fuzzy front end of design process focuses on informative and inspirational aspects that trigger design insights and concepts (Leonard and Rayport, 1997; Rhea, 2003; Visser et al., 2007; Oygur, 2012).

Designers structure salient issues, thoughts, and ideas relevant to the design problem in early phases of the design process. Prior to a designer developing abstract relations and concepts, a great number of design issues need to be raised and structured for a designer to develop innovative solutions. Enabling designers to focus early on the design problem, places them in a position to develop more considered responses to a design problem (Kokotovich, 2007).

### **The Early Phases of Design Process from an Educational Perspective**

The part of the design process especially associated with innovation and creativity (Wormald, 2011), namely early phases of design is also important for design education. In early phases of the design process, students first explore and understand the problem domain. It is the process, designers intake information to enrich their knowledge base into the problem domain and structure their design problems and then attempt to make sense of what they have learned (Kolko, 2010). They gain insights and find relationships or themes in the information they intake, and uncover the meaning in what is observed that is applicable to the design problem at hand (Sanders and Stappers, 2012). Enabling design students to focus early on the design problem, places them in a position to develop more considered responses to that design problem (Kokotovich, 2007).

### **Design Thinking in the Early Phases of Design Process**

Design thinking can be defined as an idea, a strategy, a method, or an approach which affects professions as it matures. It is a way to solve problems through divergent thinking process in which choices are created and convergent thinking in which choices are made (Brown, n.d).

According to Torrance et al. (1965) the verbal and nonverbal aspects of creative thinking are "fluency" in producing diverse ideas, "flexibility" in adapting to change and using various approaches; "originality" in generating unusual associations, "elaboration" in redefining and reorganizing in new ways, to shift or to transform the function of familiar objects into a new contexts; "resistance to premature closure" such as being receptive while processing information, finally, "abstractness of ideas".

Williams (1969) calls these as cognitive aspects of creativity and defines them as: fluency that refers to generating many ideas and meaningful responses; flexibility which means transferring ideas from one domain to a different one; originality that represents

the ability to generate rare ideas; elaboration which is considered as the capacity to enrich ideas with details, and, finally, production of titles or ideas.

The literature of creative thinking says that there are various aspects of generating ideas. These aspects are expressed as verbal/nonverbal aspects, or cognitive aspects. These aspects are fluency, flexibility, originality, elaboration, being receptive and the quality of ideas. Various methods have been developed for the existence of these aspects both in the field of education and for professionals and are being developed. As in various fields, the methods that support these aspects have also gained importance in the design field. Methods employing thinking through adjectives can be useful for generating novel ideas. For "fluency" aspect, it helps the diversification of terms, for "flexibility" it serves for going in between the terms, for "originality" it supports generating serendipitous associations with those terms, for "elaboration" "it enables detailing those associations within a story through storytelling to further generate design ideas.

Besides creative thinking relationship; issues regarding design have also been evolved around the user and experience-oriented perspectives rather than being product-oriented (Desmet and Hekkert, 2007). Therefore, industrial design students need to understand tangible as well as intangible values to reframe design problems. Value definition of the products arises mostly in early phases of the design process which is complex and ambiguous (Wormald, 2015). Thus, before making design decisions and idea generation, defining both tangible and intangible values of products in a broad sense have recently gained importance (Wormald, 2011). This made support for creative thinking through methods, especially in the early phases of design process an important approach in design.

The design process is referred to as iterating divergent and convergent phases addressing different modes of design thinking that designers use (UK Design Council, 2005). The double diamond diagram that was launched at the Design Council in 2005, maps the divergent and convergent phases divided into four distinct phases as *discover, define, develop and deliver* (Fig. 1). The divergent phase is the creative phase where the problem is analysed, solution space is explored and the solutions are generated, while the convergent phase is the phase where the solutions are evaluated, selected and refined (Ulrich and Eppinger, 2007).

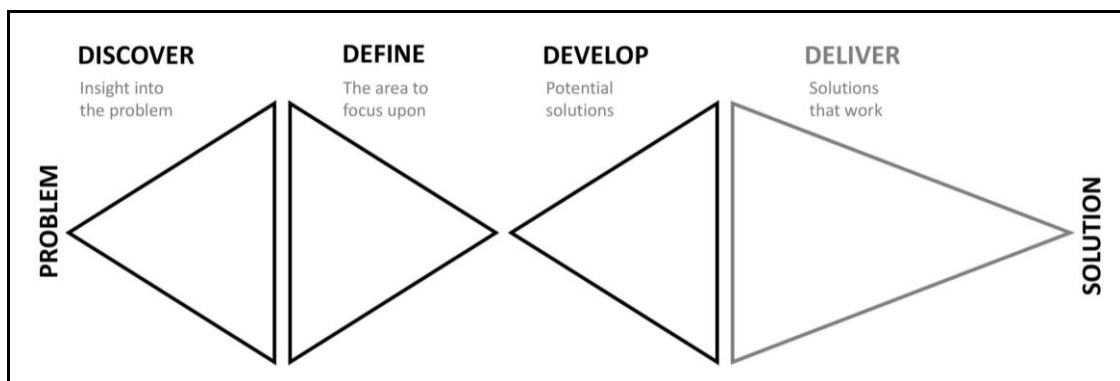


Fig. 1. The double diamond design process model. Adapted from Design Council, 2005. Retrieved, September 17, 2019 from <https://www.designcouncil.org.uk/news-opinion/what-framework-innovation-design-councils-evolved-double-diamond>

Design thinking model covers five phases which are *empathize, define, ideate, prototype and test* (Fig. 2). Designers go through divergent and convergent thinking processes as expressed in the double-diamond shape, as they engage in design thinking.

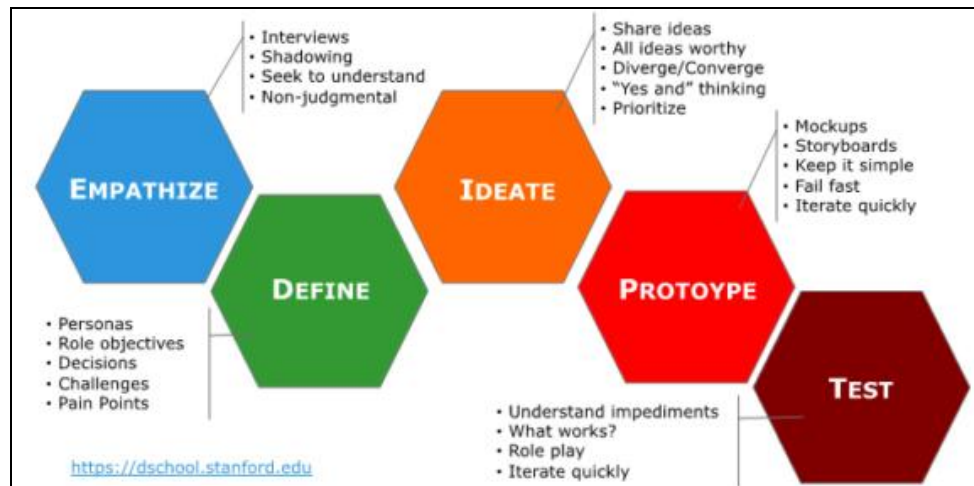


Fig. 2. The Design thinking process. Retrieved, September 17, from <https://www.enterpriseirregulars.com/125085/what-is-design-thinking/>

### **SOME DESIGN TECHNIQUES EMPLOYING ADJECTIVES FOR DESIGN THINKING**

Adjectives are defined in The Cambridge Grammar of English Language as expressions "that alter, clarify, or adjust the meaning contributions of nouns", the expressions that promotes better degrees of meaning, that only names would not suffice (Pullum and Huddleston, 2002, p. 526). They alter a noun to denote a quality, indicate its quantity or extent, or specify it to make a distinction from something else. (Merriam-Webster's dictionary, n.d)

One of the studies on the use of adjectives is the project of "Designing new study units for the Y generation" in a design studio project with senior students. A number of dimensions such as flexible working hours, mobility, different posture requirements, changing rest and working intervals emerged from the research considerations of the students and dealt together with the spaces and environments. These spaces, environments and dimensions were considered as keywords, they were matched with each other and various ideas emerged as a result of this study (Hasdođan, 2016).

Another study employed adjectives aimed at designing "Sustainable Solutions for Kids for Creating a Space of Their Own". In this project the tutors directed the students to go through several steps for idea generation where adjectives triggered the initial process. Firstly, the students formed teams of three or four members and conducted a literature search. Secondly, the student teams carried out field observations and interviews on and documented them with still images, video recordings, voice recordings, notes and sketches. Thirdly, the student teams discussed their major conclusions, findings and insights from the design research phase and generated a pool of project dimensions in the form of adjectives such as "transformable, empowering or affordable". Then, each team proposed four dimensions which they found important for the project. The project dimensions (adjectives) explored by the student teams in the mood board exercise were "safe, affordable, imaginative, transformable, connecting, abstract, surprising, reconstructable, compact, sympathetic, reusable, energetic, flexible, private, empowering, naïve and social" (Korkut and Dođan, 2009).

A design project aimed at developing "Sustainable Solutions for Glass Packaging" is another example that employ adjectives for design process. In this study, the data from the interviews conducted by the students were analysed thoroughly concept by concept, and then were categorized considering the implications of the user observations and recordings for the design concepts in terms of post-use and re-use. Emerging definitions of dimensions (adjectives) were personalization, engaging, local, etc. that informed the design concepts which were retrieved from the responses of the students (Turhan, 2013).



In both “Sustainable Solutions for Kids for Creating a Space of Their Own” and “Sustainable Solutions for Glass Packaging” design projects, these adjectives were employed in an idea generation matrix, in which students do idea sketches regarding the adjectives.

A workshop conducted by Jasjit Singh (March 2-6, 2019) was an inspirational example, which enabled the participants to think through adjectives which were as protective, resistive, unified, hybrid and reciprocal. First, he asked the participants to explore the material qualities and then delivered diverse adjectives to explore the meaning further. For instance, protective was related with enclosing, guarding, wrapping, containing and holding; resistive with opposing, preventing, challenging/ reverse forces, passive-active, unexpected/; reciprocal with complementing, reacting, reflecting, agreeing and expecting, unified with converging, agreeing, fitting and holding; hybrid with complementing and interdependence. Thinking in this way, supported the participants to question the potentials and limitations of the materials by considering the adjectives, and generating meanings for the objects regarding actions to be performed with them. At first, the participants individually explored the material they were working with and then they came together as a team of two to explore the adjectives given. The participants thought the core inherent qualities of the materials they were working with and explored how these materials complement or depend on each other. For instance, for the adjective “hybrid”, the team (in which one of the authors was in), one of which was working with durable folded paper structures and the other was working with the flexible woven strips; their ideas merged in a tensegrity structure. Tensegrity is the property of a skeletal structure having continuous tension members and discontinuous compression members so that each member performs efficiently in producing a rigid form (Merriam-Webster's dictionary, n.d). The team's design idea was a desk lamp having features of tensegrity.

We can see that the participants experience both divergent and convergent thinking processes to explore the problem area and generate ideas. This example illustrates thinking through adjectives serves to engagement and creativity as it enables the participants to explore diverse sides of the design problem and come up with design ideas in a relatively short time. Here, the authors reconsidered the process of determining an object that is built with tensegrity structures as a persona definition and scenario building, since the project was focusing on travel suitcase for specific users that the students identified, rather than the material qualities.

## **MATERIALS AND METHODS**

### **Thinking through adjectives in early phases design process**

In this study, we employed adjectives as a part of the design thinking process that covers empathy and define phases. The students were expected to diverge terms (five adjectives given) related to the design problem through brand analysis, carry them into other domains such as personas and scenarios, generate associations, redefine and reorganize them. A combination of techniques in which adjectives are employed for defining tangible and intangible values of experiences, within a systematic and sequential manner throughout the early phases of design process is observed to support students to reframe their design problems and generate ideas.

In the Empathy phase, the students went through a divergent thinking process. Brand analysis aimed at supporting diverge terms as they generate relevant concepts by exploring and understanding brand identity, how brands reflect themselves verbally and nonverbally (visual, olfactory, sound, etc.) In the Define phase the students went through a convergent thinking process. Persona and scenario building supports reorganising previous findings, defining the target user and their specific tasks within a story. In the Ideate phase the students generated alternative ideas (Fig. 3).

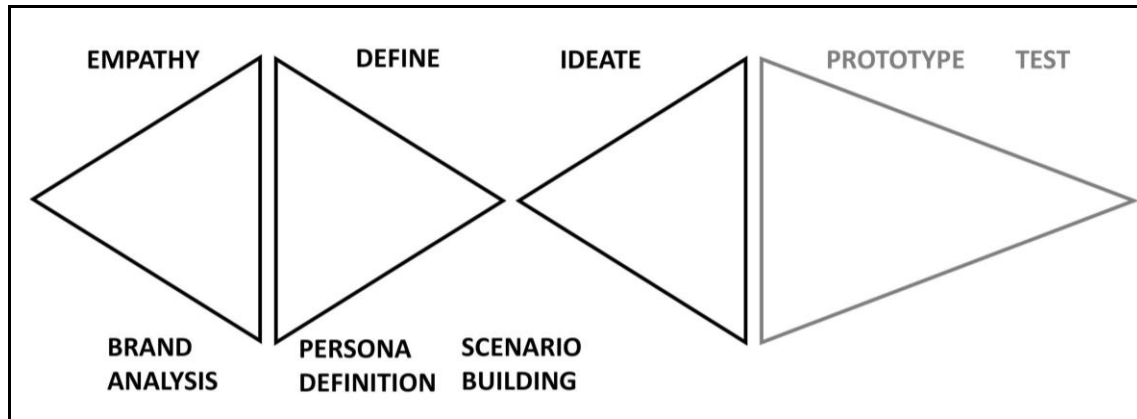


Fig. 3. A process model of thinking with adjectives

### **Techniques employed in the proposed method**

#### ***Brand analysis***

Brands develop strategic communication and innovative advertising for creating an impression on consumers through both utilitarian and non-utilitarian aspects (Sweeney and Soutar, 2001). These communication and advertising elements can be the logo, advertisements, a poster, colour charts, social media channels, etc.

The student activities took the form of researching the chosen brand decided according to the adjectives given to them, revealing its character and generating more terms, to communicate the essence of the brand identity. This is taken further in later persona definition and scenario building activities that were closely aligned to the brand analysis that enabled them to discover brand values which Warmald (2011) stated this activity as “the articulation of a brand territory”.

#### ***Persona***

Personas are among the storytelling techniques which also include scenarios, storyboards and role-playing (Kouprie and Visser, 2009).

A persona is a “hypothetical archetype of real users” that is described as a real person with name, age, personal habits, hobbies and emotions (Pruitt and Adlin, 2006). It aims at explaining the needs of that user while performing a specific task. Modelling a persona serves for acquiring a more holistic view of the human aspects of the user and facilitate evoking empathy (Giacomin, 2014).

#### ***Scenario building***

A scenario covers the users, the context and a set of tasks that users perform or want to perform and combines ongoing activities with an imaginary future to question how these activities can be better (Nardi, 1992 cited in Suri and Marsh, 2000). Scenario building is the development of a series of alternative stories involving specific personas, events, products and contexts, which allow designers to explore ideas. The medium may be written stories, annotated sketches, cartoons, photographs, role-playing, video or live dramatizations (Suri and Marsh, 2000).

Employing adjectives provide an opportunity for telling stories which is an effective tool for exploring, shaping and sharing knowledge (Krasner, 2008) and for conveying information that can be comprehended and internalized easily (Eisner, 2008).

#### **Research Methodology**

This section aims at giving a brief introduction on how this method emerged, and explain how the outcomes of the study are evaluated.

On the first day of the project, during the class discussion, the tutor asked students to name an object they were obsessed with. The students named several objects as examples and the tutor asked the reason behind it. After the discussion, the students referred to the actions that they perform with it. For instance, a student remarked her



smartphone as her obsessed object. During the discussion, rather than the object itself, the real thing that she was obsessed with emerged to be communicating and keeping in touch with the community she was in, -though not physically but at least digitally-. Then, the tutor asked the student to exemplify what kind of communication she is obsessed with. As she defined the communication she preferred, with several adjectives such as seamless and just-in-time communication, a scenario is built around communication and her. This discussion brought about a method involving a persona definition and storytelling: who this girl is, what kind of a lifestyle she lives and the kind of communication she prefers and detailing them within a story. The tutors gave students five adjectives. Among them, the students were asked to pick up one of them. According to the adjective they have chosen they were asked to find several brands they relate this adjective with. In order to explore the adjectives and diverge them (in stories/scenarios), the students were advised to analyse ads -whether video or poster- of these brands that they explicitly or implicitly associate with travel, since through the fictions of the videos they can understand a scenario that reflects the adjectives the brands define themselves with and how they address to the target audience. They could pick up any ad regardless of being directly related to travelling, as long as they explained the connotations. They were also advised to diverse the adjectives are given to them by offering more but interrelated terms. Then, they can rely on these connections within the ads with the adjective they had chosen for defining their design problems which involve users, use environments and the actions performed. The adjectives would take the form of adverbs as they defined the actions. Thinking with adjectives or adverbs through analysing the ads was the first step in the process. The students were expected to explore visual clues regarding the adjectives given to them since the students were also familiar thinking in this way. In the previous projects, the students used moodboard as a creativity tool in which they explored and communicated intangible or abstract emotions or concepts through a collection of visual representations (e.g. photographs, sketches, diagrams, illustrations, material samples, etc.) selected and gathered together in a meaningful manner such as calmness, inclusiveness or viability (McDonaugh, 2002; Korkut and Doğan, 2009). In the second step as they explored the adjectives they were going to engage with, they defined their personas and told stories of travelling for those personas/ target users.

As a research methodology, the documents provided by the students are analysed for understanding how the adjectives were employed in each step such as brand analysis, persona definition and storytelling (by the authors as tutors of the project). By this way, it was aimed at disclosing the qualities of the techniques in fostering creativity. 5 students' documents are chosen to be analysed for the reason is that they had arrived at diverse conclusions even though 2 of them adopted the same adjective.

In the following section, examples of how the method was used and the benefits it provided to the students will be explained.

### **THE CASE: DESIGNING A TRAVEL SUITCASE**

Five adjectives determined by the tutors according to the subject of the project are presented to the junior year industrial design students through a guideline. Students choose at least two of these adjectives. These adjectives were excited, sincere, solid, competent and sophisticated. Brand analysis, persona and scenario building techniques were used in empathy and define phases. In the *brand analysis*, the attributes of the various characteristics of a brand were examined in relation to the chosen adjective to generate more concepts that these adjectives might be associated with. In *persona*, these adjectives and concepts expressed the lifestyle and characteristics of the fictional character. In *scenario building*, the adjectives were used with other concepts to create a scenario. The students prepared a visual presentation for brand analysis, persona and scenario building.





### ***Brand analysis as product-oriented technique***

The students were asked to analyse a brand at this stage. Brand analysis was preferred as the first step in creating an effect in the way of thinking in the early stages of design. Brand analysis is meant to make the students understand the perception of the brand and the concepts that make sense of the brand, rather than the techniques used in marketing. Rather than a technical brand analysis method, brand analysis has been used in a different way: While doing brand analysis, students performed an analysis on the perception of brands instead of a technical analysis. An analysis of brands from the given adjectives perspective was conducted and sub-concepts were obtained. The selected brands were not expected to be a suitcase-producing company, because the students were expected to understand the impact of these adjectives on the perception by focusing on adjectives in this study. The students tried to obtain the sub-concepts by analysing the brand they selected and examined the visual and verbal language of the existing brands in the context of the adjectives given through advertising videos and posters. Adjectives were asked to turn into sub-concepts. For this reason, the students were also asked to write other concepts that adjectives evoke in themselves. In this way, they have passed to the second stage by doing brand analysis and defining sub-concepts related to this brand.

### ***Persona as user-oriented expression technique***

The students conducted image and video analysis for their personas. Related sub-concepts were considered within the framework of the concept of travel and answers to the question for whom are sought. Persons as bloggers, festival travellers, nature travellers, backpackers, families with children emerged from this study. From the images and videos, they tried to define the characteristics of their personas and understand their actions and tendencies.

### ***Scenario building as action-oriented expression technique***

At this stage, the students told stories about the expectations of their personas from their travel experiences.

## **RESULTS: EXAMPLES FROM STUDENTS' WORKS AND RESULTS OF THE STUDENT SURVEY**

### ***Example-1***

In this example, the student chose the adjective excitement and based on this adjective, because an excited travelling evoked backpackers, she has chosen to analyse the advertisements of a young woman and a man traveling with a backpack issued by an operator company (Turkcell-Özgür Kız) in the early 2000s; and also watched and analysed backpacker vlogger videos. Backpacker was the persona that she has chosen. This persona shares, exchanges belongings with friends, wants to leave their belongings in place, wants to be free, does not want to be restricted, wants to travel unplanned. Therefore, the concepts that the student dealt with as a result of video analysis; timeless, unplanned, frequent and sharing. Two of the concepts that led the student's project were sharing and timeless. The scenario of the student, who dealt with the adjective choices with the backpacker persona, was as follows: He has built a portable suitcase with units that can change size according to the volume needed by her persona. In this scenario for the persona who adopts this unplanned and frequent traveling lifestyle, the backpacker can go on a trip with 6 units of suitcase and return with 4 units and increase the volume of the suitcase with more units (Table 1).

Table 1. The student's brand analysis, persona, scenario boards and product concept (Ekin Yüksel, 2019)

BRAND ANALYSIS	PERSONA	SCENARIO	PRODUCT CONCEPT
			
			

**Example-2**

The adjective sophisticated evoked different brands and styles to the student. These included a high-end ice cream brand (Magnum) and a perfume brand (Clive Christiaans), as well as a sophisticated style of clothing. The mere concepts she derived from the style of clothing have been adjectives "interesting" and "special". While the previous student (Example) established a direct relationship between the adjective and the persona, this student defined the subordinate concepts by examining the advertisements of the brands. She preferred a perfume brand (Clive Christiaans), depicting a sculptural and exposed perfume bottle identity, in the glass stand, which was cleaned with gloves. The concepts derived from the ice cream (Magnum) advertisement, perfume bottle advertisement and clothing styles have been flashy, interesting, special, stylish, free, original and sculptural. The result of these analyzes evoked the persona of businesswoman. This businesswoman was an owner of a pet. She is a well-groomed, presentable person with a healthy lifestyle and a passion for shopping. As a scenario, she often travels on a short-term business trip with a cat or small breed dog pet. Personal hygiene and care products as well as healthcare products and petcare products are always available as a ready-to-travel kit. Since this person travels untimely and cannot leave her pet to anyone in this short period of time, the decision to travel and preparation is short and she makes these trips with her pet. According to the student, the concept of sculpture is related to the presence of this suitcase at any moment and to represent its existence on its own. The bag used to carry the pet is also part of this suitcase. The suitcase has a cabin-sized volume in accordance with this scenario (Table 2).

Table 2. The student's brand analysis, persona, scenario boards and product concept (Reyhan Günbeyaz, 2019)

BRAND ANALYSIS	PERSONA	SCENARIO	PRODUCT CONCEPT

**Example-3**

The student who has chosen sincere from the adjectives stated that sincere evokes a dairy brand (Sütaş) which expresses itself with naturalness and purity. When examining brand advertisements, he stated that his sincere perception was related to purity, parent and child relationship and togetherness. As a persona, the student has considered families with children and tried to observe their travels from the images and videos. As sub-adjectives, he derived the concepts of purity, coexistence, embracing and cuddling. He created a scenario of travelling all family members together. This student has created both the persona and the scenario by using the advertisement he had dealt with. He designed a set of suitcase that can be carried together as a whole or separated, including a parent suitcase and a baby suitcase (Table 3).

Table 3. The student's brand analysis, persona, scenario boards and product concept (Furkan Dışbudak, 2019)

BRAND ANALYSIS	PERSONA	SCENARIO	PRODUCT CONCEPT
<p>Clean              Family              Sense of contentment              Health              Happiness              "from farm to tables"</p>			

**Example-4**

In this project, the student has chosen his sincere title. As the sincere adjective evokes an intimate atmosphere, she has watched various festival commercials and videos. Therefore, she has chosen were people who participated in international festivals 1-2 times a year as persona. She analyzed the festival videos. After determining this persona, she used the videos mostly for determining the situation problems and needs and stated them in a scenario. Starting from the intimate atmosphere of the festival videos, the student intended to design a suitcase consisting of pieces that make it easier to reach the necessary goods when needed, with the user "not a moment, but at any

moment, and that shows what is in it. To design. She proposed a suitcase that accompany the user with "a free of the burden alike" qualities. She designed a modular suitcase that took part in the process of entertainment, rest, and sleep during the festival. The suitcase, which is carried in one piece with different compartments, breaks apart from the suitcase identity during the festival and takes on new functions such as pillows, bags and mats (Table 4).

Table 4. The student's brand analysis, persona, scenario boards and product concept (Özgür Kırılak, 2019)

BRAND ANALYSIS	PERSONA	SCENARIO	PRODUCT CONCEPT

### Example-5

The adjective durable evoked the subject of professional sports and the student who preferred to investigate the logos of various sports activities such as marathons and olympics addressing children. The student preferred children traveling for sports purposes as persona. She has reached the knowledge that the age of children athletes participating in tournaments is ten. This information has gained importance in terms of product dimensions, volume and weight. Based on the concept of sound, the student has gained strong, protected, reliable, courageous, high quality and balanced sub-concepts. The student who made the video analysis of the children's preparatory stages, observed that their children carried their suitcases themselves, that some behaviors such as bumping, falling and pushing were even confused. She found that the suitcase choice was made by the parents of their children and that the most important criterion was solidity. Accepting this as a requirement, she has designed a product with more geometric forms with a higher number of edges and corners than a static, stable, smooth surface with a higher strength (Table 5).

Table 5. The student's brand analysis, persona, scenario boards and product concept (Beyza Çolakoğlu, 2019)

BRAND ANALYSIS	PERSONA	SCENARIO	PRODUCT CONCEPT
			

### Results of the Survey Regarding the Effectiveness of the Method

An online survey was delivered to 12 students after the project completed. In this survey, their opinions regarding how effective was the method in each step -persona definition, scenario building and idea generation- were asked in a likert scale. The questions were:

How effective was the use of adjectives in finding answers to the questions below for the suitcase design project?

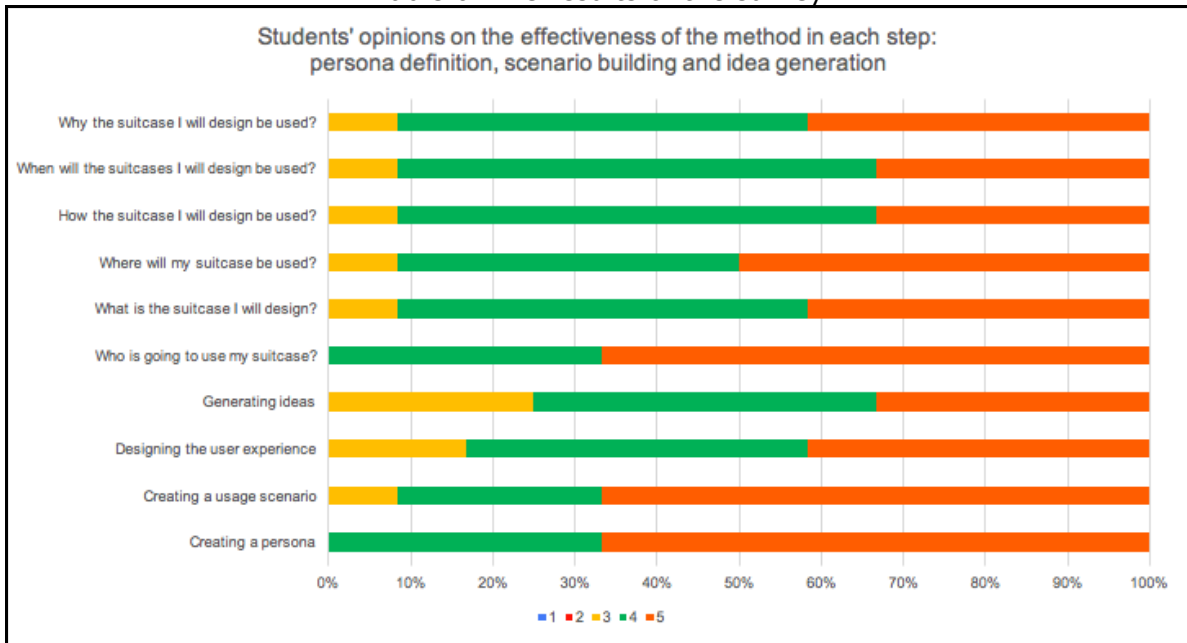
- Creating a persona
- Creating a usage scenario
- Designing the user experience
- Generating ideas

How effective was the use of adjectives in finding answers to the questions below for the suitcase design project?

- Who is going to use my suitcase?
- What is the suitcase I will design?
- Where will my suitcase be used?
- How the suitcase I will design be used?
- When will the suitcases I will design be used?
- Why the suitcase I will design be used?

Although the number of participants could be expressed as a limitation of this study, according to the findings, the students benefited from the techniques included in this method.

Table 6. The results of the survey



## CONCLUSION

In this study, brand analysis is an analysis phase and supports divergent thinking. The students analysed brands, derived sub-concepts related to their adjectives, and thought about the visual and verbal expressions of the chosen adjective. In this way, they created related sub-concepts. At this phase, the students were looking for an answer to the question "what are things that can be perceived as sincere? ". They questioned what could be sincere through brand analysis and tried to extract sub-concepts. Persona and scenario building is a synthesis phase and supports convergent thinking, because at this phase, students have made sense of the concepts they have created. For example, the related sub-concept with the sincere adjective was preferred as free, the query of "what is perceived as free?" emerged as divergent thinking, and the query of "how to express freedom?" as convergent thinking. In the persona and scenario building, the students tried to define the preferences of people for travelling through sub-concepts they generated: What kind of travel: a free, sharing, exciting, timeless, unplanned, together, a travel for exchanging goods, etc. Space, processes, actions and stakeholders were included in the scenario. During the idea generation phase, the students sketched out a focus on the relationship between space, action and stakeholders and interpreted the scenario to consider technical requirements, ergonomic requirements, the necessary components of the suitcase. During this process, the students experienced a transition from abstract thinking to concrete thinking. For example, a suitcase, which emerged to be "as if it were absent" in the scenario, is disassembled and impersonated into different objects such as a pillow, a mat and a bag, in the student's design concept. In this respect, the scenario can be considered as a transition phase from abstract to concrete, where it provides the connection.

One of the benefits of this method is that one adjective takes on different meanings with concept derivation. For example, the concept of sincere has gained a different meaning for the festivals, while emerged as a completely different idea under the concept of family and communication.

Another benefit is its contribution in the transition from abstract to concrete. While the concept of sincere can be perceived as abstract, the concepts of hugging and embracing (Example-4) derived from it can be considered as more concrete expressions.



The results of the survey also show that the students have benefited from this method at various phases. In the following studies, different effects of adjective selection will be examined in more detail using different project topics and contexts.

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