

# UNIVERSIDADE FEDERAL DE PERNAMBUCO CENTRO DE ARTES E COMUNICAÇÃO PROGRAMA DE PÓS-GRADUAÇÃO EM DESIGN

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SELF-CONCEPT AS AN ARTIFACT EVALUATION METHOD: generating evidence of the use of self-concept as an artifact evaluation method through the application in feature films.

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Master thesis presented to the Graduate Program in Design of the Federal University of Pernambuco, as a partial requirement for obtaining the Master's degree in Design.

Concentration Area: Planejamento e Contextualização de Artefatos

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# **CECÍLIA ELOY NEVES**

# "SELF-CONCEPT AS AN ARTIFACT EVALUATION METHOD: GENERATING EVIDENCE OF THE USE OF SELF-CONCEPT AS AN ARTIFACT EVALUATION METHOD TRHOUGH THE APPLICATION IN FEATURE FILMS"

Master thesis presented to the Graduate Program in Design of the Federal University of Pernambuco, as a partial requirement for obtaining the Master's degree in Design.

Approved in: 23/04/2021.

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#### **APPRECIATION**

One more stage completed; I confess that I could not imagine myself doing a master's degree when I finished my graduation. However, I found in the academy an unexpected realization, and I am very proud of this research and the trajectory up to this point. Furthermore, many people have been part of these for more than two years of study.

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#### **ABSTRACT**

Through evaluating diverse films, this research aims to generate further evidence on the use of the Self-concept as a method capable of evaluating various artifacts. The Self-concept is conceptualized by Rosenberg (1979) as "the totality of thoughts and feelings that a person has about him/herself," and this variable has been used in recent studies as a method capable of characterizing the user, evaluating artifacts, and predicting the market success of various artifacts. Despite being a variable initially studied in psychology, since the 60s, it has been applied in the marketing area to understand the users' purchasing behavior. Studies have claimed that the greater the identification of the user with the image of the artifact or the idea of the possible use of the artifact, the greater the chances of purchasing. Moreover, one way to measure this is through the Self-concept questionnaire. It has already been used to characterize the user and evaluate artifacts in the design area. However, few studies still evidence the use of this method to assess artifacts, and even fewer show its ability to encapsulate the user experience and predict market success. There is a need for methods to understand the user and the experience in design and the film. Studies aiming to propose systems and mathematical equations capable of characterizing the user to recommend films are pretty standard, but few consider the whole experience of watching a film. This research aims to generate evidence on using the Self-concept as a method used in the design, user experience, and film evaluation.

**Keywords:** Self-concept; Film Evaluation; Design Process; User Experience.

#### **RESUMO**

Por meio da avaliação de filmes diversos, essa pesquisa visa gerar mais evidências sobre o uso do Autoconceito como uma ferramenta capaz de avaliar artefatos diversos. O Autoconceito é conceituado por Rosenberg (1979) como "a totalidade de pensamentos e sentimentos que uma pessoa tem sobre ela mesma" e essa variável vem sido usada nos últimos anos, como uma ferramenta capaz de caracterizar o usuário, avaliar artefatos e prever o sucesso de mercado de artefatos diversos. Apesar de ser uma variável inicialmente estudada na área de psicologia, desde a década de 60 ela vem sendo aplicada na área de marketing para entender o comportamento de compra dos usuários. Isso porque estudos mostram que quanto maior a identificação do usuário com a imagem do artefato ou a imagem do possível usuário do artefato, maiores as chances de compra. É uma forma de medir isso, é pelo questionário do autoconceito. Na área de design, ele já vem sendo utilizado para caracterizar o usuário e também avaliar artefatos. Porém, ainda existem poucos estudos que evidenciem o uso dessa ferramenta para avaliar artefato e menos ainda mostrando a capacidade dela de encapsular a experiência do uso e prever o sucesso de mercado do artefato avaliado. A necessidade por ferramentas capazes de entender o usuário e a experiência de uso existe não apenas na área de design, mas de filmes também. Estudos com o objetivo de propor sistemas e equações matemáticas capazes de caracterizar o usuário para melhor recomendar filmes é bem comum de encontrar, mas poucas consideram toda a experiência de assistir a um filme. Dito isso, esta pesquisa visa gerar evidências sobre o uso do Autoconceito como ferramenta capaz de ser utilizada na área de design, experiência do usuário e de avaliação de filmes.

**Palavras-chave:** Autoconceito; Avaliação de Filmes; Experiência do Usuário; Processo de Design.

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# LIST OF ACRONYMS

GSGO Gratifications sought, gratifications obtained

MoRI Modes of Reception Inventory

SMEC Subjective Film Evaluation Criteria

TSQA Theory of subjective quality assessment

U&G Uses and Gratuities

WOM Word-of-Mouth

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#### 1 INTRODUCTION

It is hard to predict when or if the artifact will succeed when it is about market success since it is hard to understand the user behavior when purchasing goods. Several methods have risen over the years to understand the user not only as someone who uses, for the satisfaction of their own needs or desires, products and services (Michaelis, 2015). But as a person with fears and insecurities. User characterization is already a reality in areas as design and consumer behavior. In the design area, the word "consumer" was substituted for "user", which is a person that interacts with the artifact [Source: ISO 9241-11: 1998], where artifact can mean a product or service.

Understanding the user's needs, desires, and insecurities have been a concern in several areas in the past years and gaining ground with the term user experience. Studies in user experience are still very much within the scope of subjectivity, which means there is still no consensus on what experience is, how to provide a good user experience, and how to measure it. However, it is already possible to find techniques used to measure the user experience concerning an artifact such as the UX Curve, AttrakDiff, EmoCards. However, in recent years a method has been applied to characterize the user, evaluate diverse artifacts, and encapsulate the user experience, called Self-concept.

Self-concept is described by Rosenberg (1979) as "the totality of thoughts and feelings that a person has about him/herself." It is a mutable variable that changes throughout a person's life. It is still possible to find this method used in psychology in research about academic performance, for instance. Still, nowadays, it has been used to evaluate different artifacts in the design area. Moreover, to generate more evidence about the use of this method, to evaluate artifacts, this research came up. This research aims to use the Self-concept to evaluate films in general.

Choosing films to be the evaluated artifact was to test the method and see if it can evaluate an artifact that provides a more subjective experience to the user. There is still not much research on film evaluation considering subjective criteria. Much less than consider the before, during, and after the experience of watching films. The success of the film and the evaluation of a "good" film are still closely related to technical criteria. If technical criteria were the main factor for the success of

a film for the user, critically acclaimed films would also be the users' favorites, which is not a reality.

Studies have claimed that the Self-concept method can characterize the user, predict market success and understand the user's experience. Furthermore, this research aims to test this method and generate evidence of its use through questionnaires with volunteers. The ethics committee previously submitted this research (CAAE: 31324920.3.0000.5208) and approved it (Number of Seem: 4.190.776). This document will begin with a literature review on Self-concept and film evaluation to present what was found on the subjects—followed by the theoretical background, where the concepts used for this research will be given. Then the details of the experiment and data analysis. Finally, it ends with the initial and final considerations, limitations, and future work.

#### 1.1 RESEARCH PROBLEM

The Self-concept, as an artifact evaluation method, can evaluate films?

#### 1.2 OBJECTIVES AND OBJECT OF STUDY

## 1.2.1 Research object

Self-concept as an artifact evaluation method.

### 1.2.2 Study object

Films in general. Feature films with no specific genre are watched in cinemas, at home, and on any streaming.

# 1.2.3 General objective

Self-concept has already been applied in the field of design to characterize the user and evaluate artifacts. However, there is still little evidence of its ability to evaluate any kind of artifact. This research aims to generate further evidence that proves the possibility of using this method to evaluate artifacts.

# 1.2.4 Specific objective

- Conceptualize Self-concept as an evaluation method;
- Conceptualize film evaluation considering subjective criteria;
- Generate a personalized Self-concept questionnaire to evaluate films;
- Evaluate films in general with the Self-concept, considering subjective evaluation criteria.

#### 1.3 JUSTIFICATION

The need to understand the user by characterization and experience is the primary concern of the design and user experience researchers. Studies in this area have been rising in the past years, and companies have invested in it. Thus, several techniques and methods have been used to understand the user better. In the design area, methods such as Personas (Cooper, 1999), User Archetype (Mikkelson; Lee, 2000), and User Profile (Hacks; Redish, 1998) have been used to characterize the user. The problem with most of these methods used in the design field is the lack of statistical validation, and it tends to generalize the user. In this scenario, the Self-concept (Rosenberg, 1979) begins to be inserted into the Design Process. The Self-concept has been proving to be not only capable of characterizing the user but capable of evaluating artifacts, predicting market success, and encapsulating user experience.

While research in marketing and consumer behavior already uses the Self-concept, in the design field, there are still few studies that present such a method to compose the Design Process. In the research of Neves (2017), the Self-concept was used in an experiment to characterize and evaluate smartphone games. The researcher presents the Self-concept as a possible method to describe the user in the Design Process lacks statistically validated methods that do not generalize the user. While in Mendes' (2020) research, the Self-concept was used to evaluate the experience of watching films in Virtual Reality (VR), presenting the method as an option to evaluate artifacts and encapsulate the user experience.

The artifact evaluation stage is also part of the Design Process, but nowadays, there is still a tendency to perform only usability tests. Heuristic analysis and usability testing are fundamental, but they are limited to evaluating the artifact's usability

without considering the user experience or the acceptability of the artifact to the users. Moreover, that is where Self-concept can come in, go beyond usability testing, and better understand the experience involved in using the artifact to be developed or evaluated. Traditional methods evaluate the artifact to a given score when attributes of the artifact are measured, which allows a score to be obtained for the quality. Although, studies have shown that the quality of an artifact doesn't have a direct nor strong correlation to its potential for adoption or success. The self-concept measures the distance between expectations from an IDEAL situation and the experience from an ACTUAL one. This distance strongly correlates with the market artifact's potential for adoption or success. In this respect, it is a method that breaks the paradigm that the better evaluated an artifact is, the more quickly it will be adopted. Furthermore, it moves to a paradigm where the important thing is to get artifacts close to the user's expectations.

The Self-concept measures the distance between the expectation of use and the actual experience, and from there is the evaluation of various artifacts. Bringing an example from the film business, the user may choose the film he/she will watch for several reasons: the trailer, synopsis, or even the title. Moreover, such elements generate an expectation, and when the film doesn't correspond to it, it could generate frustration, which leads to a lousy evaluation by the audience. Due to this paradigm shift in evaluating artifacts, it is justified that design deepens the validations and possibilities of applications of this method in their area, given its disruptive potential. The Self-concept is already well used in the marketing area to understand Consumer behavior and characterize the user. This dissertation aims to generate more evidence for using the Self-concept to justify its use during the Design Process since this method may fill gaps in some stages of the process. As in the user characterization stage, the existing techniques do not have statistical validation and generalize the user. Moreover, the artifact evaluation stage lacks methodologies that go beyond usability testing and better understand the user experience.

#### **2 LITERATURE REVIEW**

Every research begins with a literature review, which wouldn't be different. So to be able to conceptualize Self-concept as a method of evaluating artifacts, keywords were used in academic research platforms to raise research on this subject. Following the literature review survey on film evaluation, focusing on finding research that considers subjective evaluation criteria, however, it is necessary to know how film evaluations are typically done.

To understand the research and study object, it is crucial to explore all the literature about it. In this study, the Self-concept is the research object, and films are the study object. As a strategy to find the literature for the research, Google Scholar, Science Direct, ACM, IEEE, and Blucher were used with keywords directly related to the object. Furthermore, the strategy to select the results of the search was analyzing the first 100 results, starting with the title, if the title shows relevance to the study, then follow to the abstract, then to the conclusion and finishing by reading all research, if the study has shown importance to the present survey.

#### 2.1 SELF-CONCEPT LITERATURE

Starting with the keyword "autoconceito" (Self-concept), the first 100 results were analyzed. The majority of studies were about academic performance with kids and teenagers. The Self-concept first arises as a psychological variant to understand how the person perceives himself in society. Although it is essential to understand the Self-concept, the methodology and findings of those studies are not relevant to this study. With some exceptions like the study "O autoconceito e o uso de maquilhagem por parte do sexo feminino" (The Self-concept and the make-up used by part of the female gender) of Coimbra (2017) from Lisbon University, which aims to understand the link between the Self-concept of women and the behavior of purchase and use of make-up. However, the research doesn't tend to evaluate an artifact, and it was essential to see the Self-concept related to consumer behavior.

Another research founded was "Autoconceito, estilo de vida e consumo de vestuário de moda feminina" (Self-concept, lifestyle, and garment consumption of ladies' fashion), which also presents the correlation between Self-concept and consumer behavior. Cappellari et al. (2017) present Self-concept as a reflection of

the individual's perception of his characteristics and abilities. It varies according to the social experiences and the environment in which they are immersed (Blackwell; Miniard, 2000). Furthermore, for the experiment, she used dimensions of fashion attitude proposed by Miranda, Marchetti, and Prado (1999) and a Self-concept scale proposed by Malhotra (2001) to understand how women perceive themselves. She used the survey method and a Focus Group with 9 participants where they talked about behavior and decisions when purchasing women's clothes. The need for a personalized questionnaire was considered, as well as the use of the Likert Scale of 7-points, and the questionnaire counted 105 volunteers to answer it. Although the questionnaire was created, it wasn't used to evaluate artifacts but to understand how the volunteers see themself as their Self-concept.

Table 1 - Cappellari et al. (2017) Self-concept qualifiers

Table 1 - Cappellari et al. (2017) Self-concept qualifiers		
ept qualifiers		
Delicate		
Calm		
Submissive		
Wasteful		
Unpleasant		
Ancient		
Organized		
Irrational		
Mature		
Informal		
Liberal		
Simple		
Vain		
Stable		
Accommodated		
Relaxed		
Rural		
Curious		
Perfect		
Defensive		
Positive		
Naive		

Source: Author (2021).

Although it doesn't show an artifact evaluation either, this study elaborates on Self-concept questionnaires through a focus group and a survey on the studied artifact. The Self-concept is applied by two identical questionnaires used at different moments of the experiment, which will be explained better in the methodology

section. Furthermore, those questionnaires are personalized by the artifact to be evaluated, and said that the researcher has to select qualifiers about the experience of using the artifact to develop the questionnaires.

With the keyword "Self-concept," most results were the same, academic performance, people with disabilities or related to diseases, quality of life, and selfesteem, which present no relevant methodology for this study. However, the survey "The Role of Self-concept in Consumer Behavior" (Toth, 2014) from the University of Nevada, Las Vegas, was found and aims to understand the correlation between Selfconcept and consumer behavior. Consumer behavior is the totality of consumers' decisions about acquisition, consumption, and disposition of goods (Hardesty & Bearden, 2009). Unlike other research found, this one considers not only the Actual and Ideal Self but also Social and Ideal Social in the experiment. The Self-concept will be better described in the section about the theoretical background. However, it is essential to know that it is a variant that can be categorized into seven categories (Ideal, Actual, Ideal Social, Actual Social, Expected, Mandatory and Extended). However, for artifact evaluation, only two are considered (Actual and Ideal). The experiment contemplated these four dimensions of Self-concept in different sections of the questionnaire and selected eight products of four categories - Public luxury, Public necessity, Private luxury, Private necessity - and each product with a personalized questionnaire. The first survey showed the correlation between Selfconcept and consumer behavior in order to evaluate products in each category (Public luxury, Public necessity, Private luxury, Private necessity). instruments/measures considered were Product Evaluation, Image Measures, Product Image, Self-Image, and Self-Monitoring. The experiment was done with 254 undergraduate students, and the survey was online, using the Qualtrics platform. Toth (2014) created a personalized questionnaire for each product selected, and the qualifiers (adjectives) were collected in pretests. It is essential to point out that Focus Group was not used to collect the qualifiers, only an online survey with those questions:

- How would you describe the typical owner of [product]?
- What kind of personality/image would they have?
- Using the following dimensions, indicate how you would describe the typical user of this product.

Importantly, studies have shown that one way to select the qualifiers for the Self-concept questionnaire is by the focus group and literature review about the artifact that has been proven in the research found.

The qualifiers collected by Toth (2014) are shown in Picture 1. Not only a methodology relevant to this research was found, but also concepts are described by Toth (2014) as the Self-image Congruence Hypothesis which states that consumers tend to prefer products with an image that matches their self-image (Graeff, 1996b; Sirgy, 1982; Dolich, 1984). Not only do individuals have images, but products too. So when the consumer identifies themself with the image of the product or the possible user, more significant are the chances of purchase since the consumer uses possessions to define and create a self-image (Richins, 1994). "Through the purchase and use of products, consumers define, maintain and enhance their Self-concept" (Zinkham and Hong, 1991). They showed how Self-concept is already recognized in marketing and consumer behavior as an essential variable to understand purchasing behavior.

Image 1 - Toth (2014) Self-concept qualifiers

Rugged delicate	Active – passive	Follower – Leader	Safe – dangerous
Excitable – calm	Tense – relaxed	Dominating – Submissive	Tasteful – distasteful
Masculine –	Unsophisticated –	Popular –	Modern – old
feminine	sophisticated	Unpopular	fashioned
Youthful – mature	Urban – rural	Extravagant – Economical	Reliable – unreliable
Formal – informal	Self-confident – not self-confident	Brave – Cowardly	Stylish- dated
Economical –	Enthusiastic –	Informed –	Pleasant –
extravagant	unenthusiastic	Uninformed	unpleasant
Unsuccessful – successful	Simple – Complicated	Weak – Strong	Clean-cut – ruffled
Dull – interesting	Graceful –	Impulsive –	Romantic –
	Awkward	Deliberate	unromantic
Modern – old	Conservative –	Stable –	Creative –
fashioned	Liberal	Changeable	unimaginative
Extrovert –	Humorous –	Conformist –	Care-free –
introvert	Serious	Nonconformist	worrisome

Source: Toth (2014, p. 00).

Going back to Toth's experiment (2014), it was essential to see the researcher's concern about not sticking to the data collected by the Self-concept questionnaire, which is composed of the qualifiers arranged in the semantic differential scale and the 7-point Likert scale—yet collecting demographic data and finishing the questionnaire by asking the volunteers what they thought about the evaluated products. It is essential to say that in this experiment, the volunteers did not have access to the products, and it is also not clear whether they had previous experience with the evaluated artifacts. The product scores were generated by comparing how the user thinks the user's image of the evaluated product is and how his self-image is. The volunteers had the image of the products but didn't have access to the products.

Continuing the path shown by Toth (2014), the keywords "autoconceito e comportamento do consumidor" (Self-concept and consumer behavior) were used. The studies found aim to understand the link between Self-concept and consumer behavior. More specifically, to understand consumer behavior and purchasing choices more, the majority does not aim to evaluate artifacts. In the thesis "Caracterização do usuário através de Uma perspectiva do comportamento do consumidor" (Characterization of the user from a perspective of consumer behavior) of Neves (2017) from the Federal University of Pernambuco was possible to find Self-concept related to design and user experience area. Neves (2017) presented the Self-concept as a method to help the designer during the conception process. According to classic authors, the design process consists of five stages: the exploration of the problem, generation and selection of alternatives, prototyping, and evaluation (Baxter, 2011; Loback, 2001; Burdek, 2006). Thus, the Self-concept can be incorporated not only to evaluate artifacts but also to characterize the user.

Characterizing the user is a description considering individual or distinct characteristics about others (Bueno, 2009). For the experiment, not only the Selfconcept was used, but in comparison to other techniques like GameFlow, to evaluate games. Throughout the thesis of Neves (2017), it is possible to observe that the Selfconcept was used in need to characterize the user in a more individual and personal way, while other design methods tend to generalize - Personas (Cooper, 1999), User Archetypes (Mikkelson; Lee, 2000) and User Profiles (Hackos; Redish, 1998) - in addition to not presenting statistical validation. At the same time, the Self-concept has proven to be a more accurate method of evaluating artifacts, predicting the market success of different artifacts, capable of characterizing the user in a more individual and personal way, consistently predicting users' preferences, and bringing improvements to the process of evaluating artifacts (Neves, 2017). The methodology used was very similar to those of the surveys mentioned earlier. However, it presents the use of Focus Group to raise the qualifiers needed for the Self-concept questionnaire. While Toth (2014) made the comparison between the product image and the self-image of the volunteers, Neves (2017) made a comparison between IDEAL Self and ACTUAL Self, in other words, the expectation of the volunteers against the actual experience with the artifact. In this way, she generated scores for the games, and these scores were compared to scores given on game review websites.

The use of Focus Group as part of the preparation for the Self-concept method is well consolidated in studies found; some still use the survey method or just a literature review on the artifact to be evaluated, or even combined. A Focus Group is a qualitative method used in market research to attain the opinions, feelings, and attitudes of a group of people carefully recruited about an artifact or service (Hanington; Martin, 2012). Method survey is a quantitative method that aims to collect data or information about aspects, actions, or opinions of some group of people, which represents some population, through research instruments, usually a questionnaire (Tanur apud Pinsonneault & Kraemer, 1993). Furthermore, the importance of this preparation before applying the Self-concept questionnaire is also well established.

Even not finding many studies that aim to evaluate artifacts, they still bring different concepts that justify using Self-concept in several areas of knowledge, not just marketing and psychology. The paper "The Compensatory Consumer Behavior Model: How self-discrepancies drive consumer behavior" (Mandek; Rucker; Levav; Galinsky, 2017) studies the relationship between Self-concept and selfdiscrepancies. Self-discrepancy occurs when there is an incompatibility in how an individual perceives himself and how he would like to perceive himself, that is when IDEAL Self and ACTUAL Self are incompatible (Higgins, 1987). Even without presenting any artifact evaluation or the use of focus groups and Self-concept questionnaires, the research shows that consumer goods and services have psychological value. Research in the area of consumer behavior using Self-concept are easier to find. However, research that presents the methodology for creating personalized questionnaires and applying them is more difficult to find. They study the difference between ideal Self-concept and actual Self-concept to understand consumer purchasing, which presents an excellent theoretical survey but not a methodology for this study. However, the terms "self-congruence," "lifestyle," "selfimage" show some theoretical relevance to this study, the same found in some searches. However, in the paper "Consumer preference for national vs. private brands: The influence of brand engagement and Self-concept threat," it was possible to find a different methodology called Brand Engagement in the Self-concept (BESC) to measure the consumer preference between national or private brands. Moreover, in the paper "Website Visual Design Qualities: A Threefold Framework," it was possible to identify the Self-concept used to develop artifacts with visual design

qualities, which justifies this study by showing the use of the Self-concept in other areas.

In order to continue the research, the keywords "Self-concept and artifact evaluation" were used. Relating the Self-concept with the evaluation of artifacts did not show different results from those previously found. Research still links Selfconcept with self-image and self-esteem and uses it to understand purchasing behavior. The research "Investigações Sobre as influências da presença espacial a experiência do usuário em artefatos de realidade virtual" (Investigations on the influence of spatial presence on user experience in virtual reality artifacts) by Mendes (2020) goes in another direction. It presents a methodology very close to the one proposed by Neves (2017) but takes it a step further. It presents Self-concept as a method capable of evaluating artifacts, understanding the user experience, and measuring the user's presence in a virtual universe, bringing Self-concept closer to the area of design and user experience. At the same time, other research approaches marketing and consumer behavior. Neves (2017) also presents Selfconcept as a method capable of measuring the user's experience about the artifact. However, it does not bring many definitions about what experience is. She brings the definition of Flow, which according to Ckikszentmihaly (1990), is the state of total immersion of the individual in the activity he/she is performing. In the research of Mendes (2020), he describes Self-concept and virtual reality, and user experience concepts. This research is shown to be quite relevant since the object of study is films, which provide the user with a more subjective experience.

Mendes (2020) followed the same methodology as Neves (2017), using the Focus Group to select the qualifiers that would compose the questionnaire. The volunteers had to answer a questionnaire before and after the interaction with the artifact. Whereas the first questionnaire aims to measure the user's expectations and the second to measure the actual experience, and by the comparison of both questionnaires is possible to generate a score. He evaluated three short films available for Virtual Reality (VR), but as he did not want to measure the method's ability to evaluate films, the scores were not compared to any film evaluation website. However, generated qualifiers (Table 2) can be a starting point for this research.

Discouraged	Excited
With a dislike for the characters	With empathy for the characters
Emotionally not involved	Emotionally involved
Not impacted	Impacted
Inattentive	Attentive
Uncomfortable	Comfortable
Impatient	Quiet
Sick	Don't feel sick

Source: Author (2021).

Importantly, it evaluates the user experience of watching films with VR glasses, so some qualifiers are not about the film.

In order to search for more studies relating to Self-concept and user experience, the keywords "autoconceito e experiência do usuário" (Self-concept and user experience) were used, but no study demonstrates the use of Self-concept to score artifacts. In two studies, it was possible to find the use of Self-concept to characterize the user and understand their purchasing choices. Like the study "Construindo relacionamentos com a marca: qual é o papel da experiência de marca, da individualidade do consumidor e da categoria de produto nesse processo?" (Building brand relationships: what is the role of brand experience, consumer individuality, and product category in this process?) Silva (2016) from São Paulo University states that Brand Engagement in Self-concept (BESC) has proven to be an essential predictor of brand experience and brand relationship quality. Silva (2016) also presents evidence of how Self-concept has been used in marketing and branding, showing several scholars who consider this variable in their approaches. He also brings the concept of self-connection, which is the consumer's connection and relationship with the brand, when the consumer incorporates a brand into their Self-concept (Escalas, 2004; Escalas; Bettman, 2003). Continuing the searches with the keywords "Self-concept and user experience," in addition to the repeated results of other keywords previously used, nothing new was found regarding theory and methodology.

Searching for the keywords "autoconceito e design" (Self-concept and design) to find studies with the use of Self-concept in the design area, more research on Self-concept and academic performance was found and design projects, nothing relevant to this study. However, three articles show the relationship between Self-concept and brand personality, raising the theory of self-congruence again. Again, academic performance, quality of life, and self-esteem are found with the keywords "Self-

concept and design." However, many surveys show the emergence of Self-concept in design studies. The articles considered were only to increase the theoretical basis and present more justifications for this study.

Last but not least, to end the literature search about Self-concept, the keywords "autoconceito e estilo de vida" (Self-concept and lifestyle) were used. Lifestyle was used as a keyword associated with Self-concept because, historically, other techniques, based on variants such as culture and demography, have failed to predict a user's experiences and understand the user. With this scenario, the studies about Self-concept appear as part of studies about lifestyle. Although, most studies found were about the quality of life-related to diseases. Nothing relevant to this study. The relevant results found were the same as other keywords previously presented.

#### 2.2 FILM EVALUATION LITERATURE

In order to apply the Self-concept questionnaire in films, it is essential to find research about film evaluation. As previously seen in the Self-concept literature review, some studies show the use of the literature review to raise the qualifiers needed to prepare the questionnaire. So, this literature review will also be used to collect the Self-concept qualifiers.

To start the literature review about the criteria used to evaluate films, the keyword "avaliação de filmes" (film evaluation) was used. Most studies were about a film reel from analog cameras, which wasn't relevant to this study. Although, it was possible to find some film reviews as in papers "Relações de trabalho e cinema: uma análise do filme 'Que horas ela volta?'" (Relationship between work and cinema: analysis from the film "Que horas ela volta?") (Scherdien; Bortolini; Oltramari, 2018) that shows an analysis by relating the film "Que horas ela volta?" with Brazilian culture. The same happens in others papers as "Brazilian 'Jeitinho' and Culture: An analysis of the films Elite Squad 1 and 2" (Moraes; Gomes; Helal, 2016) and "Os textos críticos sobre o filme 'O Som ao Redor', seus pressupostos estéticos e desdobramentos hermenéuticos" (Critical texts about the film "O Som ao Redor", its aesthetic assumptions and hermeneutic developments) (Almeida; Pelegrini, 2015). The results with the keyword "análise de filmes" (film analysis) were the same, which shows a concern to analyze films considering technical criteria, but not considering the experience of watching a film, especially in Brazilian papers.

Image 2 - Table of Positive and Negative Implications of "Jeitinho"

POSITIVE AND NEGATIVE IMPLICATIONS OF JEITINHO.

NUMBER CORRESPONDING TO CHARACTERISTIC	POSITIVE IMPLICATIONS	NUMBER CORRESPONDING TO CHARACTERISTIC	NEGATIVE IMPLICATIONS
1	Creativity and innovation	1	Tendency to not conform to norms
2	Initiative for effecting chance (in a certain situation) and ability to solve problems	2	Inclination to corrupt or be corrupted
3	Skills of persuasion and conciliation (negotiation)	3	Tendency to abuse power
4	Adaptability and flexibility	4	Alienation (tendency to allow oneself to be manipulated)
5	Ability in personal relationships		-
6	Improvisational skills	-	-

Source: Moraes; Gomes; Helal (2016).

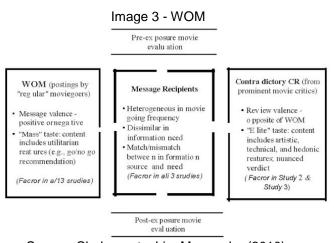
Although no methodology was found, some concepts can be considered as in the study "Filmes Americanos são Melhores? Um estudo sobre os efeitos do etnocentrismo na escolha de um filme no cinema" (Are American Films Better? A study on the effects of ethnocentrism on the choice of a film in cinema) (Oliveira; Batista; Freitas; Ribeiro; Neto, 2015) which focuses on consumer behavior when choosing a film in the cinema. They consider attitudinal models of purchasing behavior, and in order to understand the role of ethnocentrism in film choice, the scale CETSCALE (Shrimp; Sharma, 1987) was used. Ethnocentrism is a way to see the world where the person takes his/her group as a center, and the other groups are thought by their values, models, and definitions of what existence is (ROCHA, 2006). The CETSCALE scale was developed by Shimp and Sharma (1987) to measure, with consumers, ethnocentric trends related to the purchase of foreign-made versus American-made products. At the same time, this paper does not provide any methodology relevant for this study since this dissertation aims to evaluate the user expectation about a film and the actual experience of watching the film without considering the process of choice. Although, it is crucial to the researcher to see studies that consider the user choice because it is related to the user expectation. They take into consideration the following objectives:

- To verify the importance of the film attributes in the consumer's decision-making process.
- 2. Check if national films (cast and director) generate different buying interests compared to foreign films (cast and directors).
- 3. Assess whether the consumer's level of ethnocentrism interferes with the choice between national and foreign productions.

Moreover, the films' attributes were genres, director, cast, nationality, and critic review. The attributes of gender and director were associated with purchasing choice, and the orders do not demonstrate any relation with film choice or ethnocentrism. It is essential to point out that this experiment was limited to three film genres (comedy, thriller, and drama). The sample consisted of 357 volunteers living in the city of São Paulo (SP / Brazil).

It was also possible to find several studies that consider the users' choice and the concern with recommendation systems. As in the study "Rate Film App: Implementation of K-Nearest Neighbors Algorithm in the Development of Decision Support System for Philippine Film Rating and Classification" (Siñel; Eleonor, 2017) that promotes a Decision Support System that can be used in predicting film classification and rating using historically evaluated films from 2010 to 2017. The study considers the user ratings on the following attributes: Sex & Nudity, Violence & Gore, Profanity, Alcohol, Drugs & Smoking, and Frightening and Intense Scenes scrapped from a public film database. However, again, don't provide any validity methodology for this research because they don't consider subjective criteria of evaluation and are limited for Philippine Cinema as presented in the study "The MediaEval 2018 Film Recommendation Task: Recommending Films Using Content" (Deldjoo; Constantim; Dritsas; Ionescu; Schedl, 2018). The paper "The Differential Effects of Online Word-of-Mouth and Critics' Review on Pre-release Film Evaluation" (Chakravarty; Liu; Mazumdar, 2010) compares the influence of word-of-mouth (WOM) and critics films reviews in three experiments. First, they consider two types of filmgoers - a person who goes to the film regularly (Oxford Language) -infrequent and frequent. They found that online word-of-mouth (WOM) has a more substantial

influence on infrequent filmgoers, especially the negative ones. The relative influence of word-of-mouth (WOM) and critical reviews are asymmetric, with infrequent filmgoers being more influenced by word-of-mouth (WOM), while frequent filmgoers are more influenced by the reviews (Chakravarty; Liu; Mazumdar, 2010). The effect of WOM has been studied in marketing to understand product evaluation and purchasing (e.g., Mahajan, Muller, and Wind 2000; Herr, Kardes, and Kim 1991). Furthermore, recently its impact on online information has been studied (Awad, Dellarocas, and Zhang 2004; Rangaswamy and Gupta 2000). As in papers "Are online communities on par with experts in the evaluation of new films? Evidence from the Fandango community" (Nørskov, 2016), "A Crítica e sua Construção: um Estudo Através do Filme Ninfomaníaca Sobre a Influência da Crítica Cinematográfica Online na Formação da Opinião do Leitor" (Criticism and its Construction: A Study Through the Nymphomaniac Film on the Influence of Online Film Criticism in the Formation of Reader Opinion) (Pinto; Harris, 2016).



Source: Chakravarty; Liu; Mazumdar (2010).

Continuing the search about film evaluation, subjective criteria, and experience of watching a film, several studies about systems and algorithms that aim to predict film success and recommend it for users were found. The paper "Comparative Evaluation of Supervised Learning Algorithms for Sentiment Analysis of Film Reviews" (Palkar; Gala; M. Shah; N. Shah, 2016) aims to compare well-known supervised machine learning algorithms on three standard datasets confined to the domain of film reviews. Unfortunately, this paper does not provide a methodology for this study because they do not focus on evaluating film but find a pattern in film reviews, analyzing the writing, 'Sentiment analysis' or 'Opinion Mining.'

Another paper that aims to evaluate a system and not a film is "Hybrid Collaborative Film Recommender System Using Clustering and Bat Optimization" (Vellaichamy; Kalimuthu, 2017). However, this system recommends films to the user by neighbor's film rating. It is possible to perceive a particular concern regarding the user's choice of film. Lots of research on how much reviews influence the user's choice and creating systems that help to recommend films better. However, those studies don't consider the complete experience of watching the film (before, during, and after). A mathematical model was made to predict the film's success or failure in the study "Film Success Prediction Using Data Mining" (Ahmad; Duraisamy; Yousef; Buckles, 2017). As presented previously, the Self-concept can also be used to predict the market success of several artifacts, so it is important to see other ways to do so and what attributes they consider. The criteria for calculating film success included budget, actors, director, producer, set locations, story writer, film release day, music, release location, and target audience. The successful prediction of a film plays a vital role in the industry because it involves huge investments. However, success cannot be predicted based on a particular attribute. So, they aim to propose a mathematical model that compares those attributes and not consider them separately. It was also possible to see some scholars that have studied film prediction. Saraee, White, and Eccleston (2004) analyzed the online resources of several films and television shows. Sharda and Delen (2006) studied predicting the film's success, financially speaking. Zhang and Skeina (2009) started a new way to predict the success of films using the IMDb data and Asur and Huberman (2010) used social media (Ahmad; Duraisamy; Yousef; Buckles, 2017). The paper "Measurement of interactions in nonlinear marketing models: The effect of critics' ratings and consumer sentiment on film demand" (Dhar; Weinberg, 2015) uses mathematical models to measure how much critics' rating influences consumer choice. The capability of predicting the market success of films is essential for the industry and has been studied constantly. Although none of them brought feelings and experience to the equation, studies relating film evaluation and user experience are still rare to find.

During the search, the term "sentiment analysis" in studies about film reviews was seen in several studies. The paper "Film Review Analysis: Emotion Analysis of IMDb Film Reviews" (Total; Ozsoyoglu, 2016) aims to create an emotion map for the film and use it to suggest films to users with a similar emotion map. In this research, emotional models are used to create films and apply them in experiments. The basis

was the HourGlass model by Cambria et al. (2016), which enhances the categorization of emotions by J.A. Russell (1980). Even without presenting the relevant methodology, the feelings presented can start the Self-concept questionnaire.

Table 3 - HOURGLASS OF EMOTION MODEL (Total; Ozsoyoglu, 2016)

	Pleasantness	Attention	Sensitivity	Aptitude
+3	ecstasy	vigilance	rage	admiration
+2	joy	anticipation	anger	trust
+1	serenity	interest	annoyance	acceptance
0				
-1	pensiveness	distraction	apprehension	boredom
-2	sadness	surprise	fear	disgust
-3	grief	amazement	terror	loathing

Source: Author (2021).

Other studies regarding the user's emotions and feelings were found but focused more on analyzing techniques and technologies rather than on film's evaluation or on understanding the experience involved in watching films, as the paper "A Method of Emotional Analysis of Film Based on Convolution Neural Network and Bi-directional LSTM RNN" (Li; Yan; Wu; Li; Zhou, 2017) and "Social-Aware Film Recommendation via Multimodal Network Learning" (Zhao; Yang; Lu; Weninger; Cai; He; Zhuang, 2017). While Ozsoyoglu and Total (2016) use an emotion model, others use algorithms and systems to analyze film reviews, as in studies "Sentiment Analysis on Film Reviews: A Comparative Study of Machine Learning Algorithms and Open Source Technologies" (Narendra; Sai; Rajesh; Hemanth; Chaitanya; Kumar, 2016), "Aspect term extraction for sentiment analysis in large film reviews using Gini Index feature selection method and SVM classifier" (Manek; Shenoy; Mohan; Venugopal, 2016), "Sentiment Analysis of Film Review Data Using Senti-Lexicon Algorithm" (Mumtaz; Ahuja, 2016), "Sentiment analysis of film reviews: finding most important film aspects using driving factors" (Parkhe; Biswas, 2015), "Sentiment Analysis of Film Reviews: A study on Feature Selection & Classification Algorithms" (Sahu; Ahuja, 2016), "Feature level Sentiment Analysis on Film Reviews" (Sharma; Mishra, 2016) and "Sentiment Analysis on Film Reviews" (Sorostinean; Sana; Mohamed; Targhi, 2017). In the paper "Crítica Cinematográfica: Análise Linguístico-Textual" (Film Criticism: Linguistic-Textual Analysis) (Silva; Leal; Silvano; Ferreira; Oliveira, 2016), it is about cinematographic criticism at the textual

level and aims, through the analysis of 12 magazine critics, to analyze patterns and reasons that led to the positive or negative criticism of the film. It does not show either qualifier that can be used in research or a methodology for it, but it does show the concern and importance that film criticism has from recognized critics. However, without considering a film review from non-expert users, it does not bring much relevance to this study.

Importantly, there is a difference between film analysis and critic review. The analysis divides the film (Cf. Aumont, 1999), where each part will be analyzed and interpreted (Cf. Vanoye, 1994). The purpose of the analysis is to explain/clarify the functioning of a given film and propose an interpretation. While the critic evaluates the film, assigning value to a specific proposal (Penafria, 2009). This separation makes sense for the paper "Análise de Filmes - conceitos e metodologias" (Film Analysis - concepts and methodologies) since it will show the reader how to analyze the film, separating the analysis into certain stages: textual analysis; content analysis; poetic analysis; image and sound analysis (Penafria, 2009). In the paper "Objective Evaluation or Subjective Evaluation in Digital Social Media" (Feng; Favier, 2018), they present the Recommender System (RS) and how important it has been since the 1990s (Hill et al., 1995; Resnick et al., 1994; Shardanand et al., 1995). These systems are used to recommend films, for example, to users based on their previous film ratings (Feng; Favier, 2018). Furthermore, recent studies have shown that social media information can be used to improve those systems (Bernardes et al., 2015; Yang et al., 2014). They used a Chinese platform for their experiment, and they concluded that users have two different criteria ratings. This means that the user can rate a film with five stars because they love it or because he/she thinks it is a high-quality film (Feng; Favier, 2018). Even without presenting any methodology, it was essential to justify the need for a method or methodology that considers subjective criteria and users' feelings to evaluate films.

Predicting film success has also been an important area of study in the study "Early Predictions of Film Success: The Who, What, and When of Profitability" (Lash; Zhao, 2016). It is aimed to propose a system that will predict whether it is worth investing in the production by rating the film according to "who" is the cast, "what" a film is about, and "when" it will be released. Notably, the success considered in this paper is not the user's preferences but money when the box office success exceeds the film's investment. So, they don't consider public opinion nor the experience

involved in the activity of watching a film. Some studies focus on testing techniques and technologies rather than correctly understanding the user experience when it comes to film evaluation, as is the case with the paper "What makes a good film trailer? Interpretation from Simultaneous EEG and Eye Tracker Recording" (Liu; Lv; Hou; Shoemaker; Dong; Li; Liu, 2016).

When about film experience, it was possible to find the paper "Consumption of Film Experience: Cognitive and Affective Approaches" (Lee; Chen; Song; Lee, 2016) that studies the relationship between film quality, value, and satisfaction for filmgoers. Who is more concerned with conceptualizing the experience of watching a film. The experience of going to the cinema to watch a film offers the user a greater immersion due to the environment. According to psychologists, users are more likely to respond to local stimuli (Mehrabian & Russell, 1974), and in cinema, stimuli are the attributes of the film that draw the user's attention. Thus, the user is more likely to perceive all the attributes of the film in the cinema than to watch the film at home, for example (Lee; Chen; Song; Lee, 2016). What justifies the first object of study of this research to be filmed playing in the cinema, as it is proven that the cinema generates a greater immersion to the user and makes him perceive the film completely. However, due to COVID-19, this object of study could invalidate this research, and therefore it was changed to films in general. On the other hand, other studies relating to film and user experience were found but aimed to evaluate a technology or a theatre as "Let me catch this! Experiencing Interactive 3D Cinema Through Collecting Content with a Mobile Phone" (Häkkilä et al., 2014), "Avaliação do conforto térmico e análise do comportamento energético de uma sala de cinema" (Evaluation of thermal comfort and analysis of the energy behavior of a cinema room) (Cardoso, 2017) and "Integrating Mid-Air Haptics into Film Experience" (Ablat; Velasco; Obrist, 2017).

In order to select the qualifiers for a Self-concept questionnaire, it is essential to find research on subjective criteria for film evaluation. Searches focusing on subjective criteria were done. Not many different results have been found than before. Except for the research "Measuring Subjective Film Evaluation Criteria: Conceptual Foundation, Construction, and Validation of the SMEC Scales" (Schneider, 2012). This study presents film evaluation criteria and a method called Subjective Film Evaluation Criteria (SMEC). The main objective of the dissertation is the construction of a standardized method for measurement reliability and validation of the SMEC.

According to John & Soto (2007), "the central concern in psychological measurement." It is employed generically as a term that includes various aspects of psychometric quality. Despite the existence of many approaches, traditional and integrated, for construct validity, in John and Benet-Martínez's (2000) summary, they present some advantages of Messick's (1981, 1989, 1995) integrated approach, which distinguishes six types of construct validity (Image 04).

Image 4 - Types of Construct Validity

Table :	L	
Types of	of Construct	Validity

Type	Description
Generalizability	Evidence that score properties and interpretations generalize across populations, groups, settings, and tasks (e.g., reliability and replication)
Content validity	Evidence of content relevance, representativeness, and technical quality of items (e.g., expert judgments and review)
Structural validity	Evidence that the internal structure of the measure reflects the internal structure of the construct domain (e.g., exploratory and confirmatory factor analysis)
External validity	Evidence that the measure relates to other measures and to nontest criteria in theoretically expected ways (e.g., criterion correlation, multi–trait multimethod matrix)
Substantive validity	Evidence that measurement scores meaningfully relate to theoretically postulated domain processes (e.g., mediation analysis)
Consequential validity	Rationale and evidence for evaluating the intended and unintended consequences of score interpretation and use, including test bias and fairness

Note. Adapted from John & Benet-Martínez (2000, p. 352), John & Soto (2007, p. 476), and Messick (1995)

Source: Chakravarty; Liu; Mazumdar (2010).

From the construct validity perspective, "validity is considered the interpretive property of a measure, rather than the property of measuring itself" (John & Benet-Martínez, 2000). The research was divided into five phases of scale construction.

In Phase I, there is the collection of descriptions of SMEC through open-ended questions and categorized as the first step in item development. In Phase II, an online questionnaire was administered, including the items developed to measure SMEC to explore the latent structure and exclude poor items. In Phase III, we have validation of the latent structure. In Phase IV, there is a focus on generalization aspects, investigating the consistency of the measures and their situational and interactional influences and the specificity method contributed to substantial validation. In Phase V, the aim was to develop and explore the nomological network of SMEC (external validation). Picture 3 shows the objective of each phase as well.

Table 2
Phases of Scale Construction in the Present Research

Phase	Aim	Method	Study	N (complete)
I	Content validity, base for item	Open-ended online +	Pilot	258
	construction	paper&pencil questionnaires		
	Categorization, categories for item	Structure formation		12
	construction	technique + focus group		
	Reliability of category coding	Content analysis		2 coders
II	Item comprehensibility	Paper&pencil pilot test	Study 1	14
	Item comprehensibility, technical check	Online pilot test using		8
		cognitive survey technique		
	Exploring the latent structure, item reduction (EFA)	Online questionnaire		659 (500)
III	Item comprehensibility, technical check	Online pilot test	Study 2a	11
	Generalizability and Structural validity (E/CFA and CFA)	Online questionnaire	Study 2a	849 (587)
		Paper&pencil questionnaire	Study 3	152 (147)
IV	Substantive Validity and Generalizability:	Online questionnaire,	Study 2a+2b	282 (273)
	Reliability, consistency, occasion	repeated measurement		
	specificity (Latent state–trait analyses)			
V	External validity (CFA)	Online questionnaire	Study 2a	see above

Source: Schneider (2012).

Subjective film evaluation criteria were defined as standards that viewers use to evaluate film features and conceptualize them as mental representations of or attitudes towards specific features of a film, guiding cognitively and affectively processing of film information and their corresponding evaluations. Across the five phases of the study, the SMEC scales were constructed and validated and are ready for application.

Several concepts about film evaluation and evaluation methods were found in the research and the necessary qualifiers for the Self-concept questionnaire. Concepts will be presented with more details in section 4.4 about the theoretical background of film evaluation.

During research on film evaluation studies, it was possible to notice a growing concern in understanding the user's choice of film. Both to improve the Recommended System and also to predict market success. The need for methods, algorithms, and systems to understand user purchasing, predict market success, and recommend films to users has grown, which justifies the object of study to be "film" since there is a need in characterizing the user and understanding the experience involved in the activity of watching films. Self-concept is a method capable of characterizing the user more individually, understanding the user experience, and

predicting market success. This means that such a method can bring several benefits to the area of films.

It is expected that studies will continue to appear presenting systems, algorithms, models, and techniques for evaluating films. What is still not possible to find much are studies that consider the whole experience of watching films, as proposed by Schneider (2012), but the concepts and the need to consider them before, during, and after watching a film exist, and it is predicted that further studies in the field of film experience begin to emerge.

#### 2.3 CONCLUSION OF LITERATURE REVIEW

During the literature review on Self-concept, it is possible to see how it is a variable that has been studied and considered in the context of marketing and consumer behavior. However, in design and user experience, the relationship is still new. Not many studies were found with a methodology similar to this research, evaluating artifacts, but it has already started. So much so that 31 studies were considered, including papers, dissertations, and theses. Few aim to score the artifacts, but it is already a very present concept in fashion and design research as a method capable of understanding and characterizing the user, which does not prove to be a limitation but an opportunity. Generating more evidence on the use of this method can represent a great value to the area of design and user experience. It also proves the versatility of the Self-concept in generating both quantitative and qualitative data.

The literature review on film evaluation is not easy to find studies that evaluate films considering the whole experience (before, during, and after) and incredibly subjective evaluation criteria, especially in Brazilian studies, where most of them aim to make a cinematographic critique of the film, identifying cultural characteristics. However, it is possible to perceive the need for mathematical systems and formulas not for evaluation but to recommend films to users better. So, it is possible to say that there is a concern to understanding the user and his choice, but without specific techniques for this.

While Self-concept is mainly being used to understand the user's buying behavior and characterize it, the field of film evaluation lacks techniques capable of understanding the experience as a whole. However, it was possible to find research that departs from the standard in both cases and goes beyond. In film evaluation, there are already studies that consider subjective evaluation criteria. Moreover, when it comes to the Self-concept, there are already studies that use it to characterize the user and encapsulate the user experience and evaluate various artifacts.

Given this scenario, it is envisioned that studies using Self-concept not only characterize and understand the user but also for artifact evaluation, encapsulation of the user experience, and predictor of market success of various artifacts. As in the film area, evaluation methodologies that consider subjective criteria will continue to emerge. Furthermore, who knows, maybe visualize a future scenario where design techniques and methodologies, not only the Self-concept, will be applied in other areas like film evaluation.

### 3 THEORETICAL BACKGROUND

This chapter is divided into four sections, the first three about Self-concept and the last one about subjective criteria for film evaluation. The first section will introduce the Self-concept and some initial concepts. The following sections, 4.2 and 4.3, will present more concepts of the method and relate it to the area of Design (4.2) and then to User Experience (4.3). Furthermore, finish with the section on Subjective Criteria for Film Evaluation.

### 3.1 SELF-CONCEPT

The Self-concept (self-image) is conceptualized by Rosenberg (1979) as "the totality of thoughts and feelings that an individual has about himself." How the individual sees himself and would like to be seen in society. Significantly influenced by the criticisms of society and the standards established by it. In addition to being able to change according to the experiences suffered by the person (DEMO, 1992). Moreover, to be malleable, an individual can be influenced or even act differently depending on the situation (AAKER, 1999).

Self-concept is not limited to a personal process. It is molded by the social experiences a person goes through in life. Furthermore, such social experiences can come through artifacts (GRUBB; GRATHWOHL, 1967). Giavoni and Tamayo (2000) define this method as a multifaceted and malleable cognitive structure. Sirgy (1982) and Belk (1988) divided the Self-concept into seven categories - actual, ideal, actual social, social ideal, expected, mandatory, and extended.

Table 4 – Self-concept categories

ldeal Self	The way a person would like to see him/herself						
Actual Self	The way a person sees him/herself						
Ideal Social Self	The way a person would like others to see him/herself						
<b>Actual Social Self</b>	The way a person thinks the others see him/herself						
Expected Self	The way a person expected to see him/herself in the specific future						
Mandatory Self	Characteristics that a person thinks he/she has to have						
Extended Self	The person represents him/herself through the sum of his/her internal processes, ideals, experience, people, places, and things to which he/she feels attached						

Source: Author (2021).

The most studied in consumer behavior and artifact evaluation is the ACTUAL and the IDEAL Self-concept as Neves (2017) and Mendes (2020) research. The ACTUAL is how the person sees him/herself or the image that he/she has about him/herself. Moreover, the IDEAL is how the person would like to be or characteristics that he/she would like to perceive in him/herself. Nevertheless, some studies consider not only the ACTUAL and IDEAL Self-concept, but Toth (2014) also considers the ACTUAL SOCIAL and IDEAL SOCIAL in the experiment.

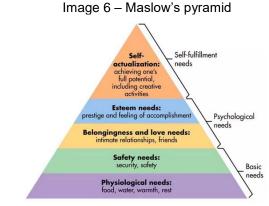
Self-concept studies emerged in the marketing area in the 1960s to understand consumer purchasing choices (GRUBB; GRATHWOHL, 1967). Furthermore, they appear associated with the Self-image Congruence Hypothesis, which is when there is the identification of the consumer's Self-concept with the image of the artifact or the image of a possible user of the artifact (Sirgy, 1982). Self-concept studies began to move out of psychology to appear in several other areas, such as marketing and consumer behavior. Furthermore, recent studies have shown the use of the Self-concept in design, branding, and user experience.

# 3.2 SELF-CONCEPT IN THE SCOPE OF DESIGN

According to classic authors, the design methodology is characterized by contemplating creativity and problem-solving. Lobach (2001) divided the designer's creative process into 4 phases: preparation, generation, evaluation, and realization. Subsequently, Bruno Munari (2008) proposes more steps for the design process, with 12 steps: problem, problem definition, problem components, data collection, data analysis, creativity, materials/technology, experimentation, model, verification, constructive design, and solution. In contrast, Bonsiepe (1984) proposed seven steps for the design process and non-linear: problematization, analysis, problem definition, generation of alternatives, evaluation, decision and choice, realization, and final solution analysis (Mendes, 2020). Although there is no standardization of the stages or phases of the design process, there is a consensus among scholars that applying a methodology in the design process helps and facilitates the process. According to Munari (2008), the methodology makes the process have better performance and achieve the best result with the least effort. No matter which author will be followed, the artifact evaluation step is always part of the design process.

It is common to use techniques such as focus groups and brainwriting to capture insights and assist in the process during the design process. Mendes (2020) presents Self-concept as a technique capable of assisting in the evaluation of artifacts, while Neves (2017) presents it as a method capable of characterizing the user. According to Bueno (2009), characterizing the user is to describe him/her considering his/her individual or distinct characteristics. This step of characterizing the user is vital to the design process so that it is possible to know the target audience. Moreover, this is done through techniques such as Personas (Cooper, 1999), User Archetypes (Mikkelson; Lee, 2000), and User Profiles (Hackos; Redish, 1998). These techniques are not statistically validated and tend to generalize the user and not consider the unique and personal characteristics of each one and the use of demographic and cultural variables. They fail to measure the user experience and predict the artifact's market success (Neves, 2019).

Understanding the user and their needs is part of the design process. According to Maslow (1954), the human being has three levels of needs. The most basic is physiological, followed by psychological, and the top is self-realization. Understanding such needs is essential to understanding the user so that it is possible to design an artifact that matches all the user's needs. Usability concerns physiological needs, testing the artifacts, and seeing if they are usable but failing to meet other needs. Evaluating an artifact at the functional level is undeniable, but other human needs must be considered in the project, which have been overlooked over the years.



Source: https://www.simplypsychology.org/maslow.html

Studies have claimed that an artifact's market success is associated with a high level of identification among the IDEAL self (how a person would like to feel/be

using the product) with the ACTUAL (how a person feels when using the product), which implies a high level of "preference" or "adoption" for this artifact and about what is presented in the Self-image Congruence Hypothesis. So, to evaluate an artifact and measure its market acceptability, it is necessary to measure the "distance" between the IDEAL and ACTUAL self. Moreover, one way to do so is by using Self-concept questionnaires. In this way, it is possible to assign scores to the artifacts to measure the distance. Furthermore, calculate it using the Euclidean Distance formula. Observe the example in Images 07 and 08.

Image 7 — Self-concept questionnaire

1 2 3 4 5 6 7

sophisticated A B S \_ \_ \_ \_ plain

appealing S B \_ \_ \_ A \_ reserved

daring \_ S B \_ \_ \_ A \_ cautious

sensitive A B \_ S \_ \_ \_ insensitive S = self-image A = brand image of A B = brand image of B  $DA = \sqrt{(3-1)^2 + (6-1)^2 + (6-2)^2 + (4-1)^2} = 7.3$   $DB = \sqrt{(3-2)^2 + (2-1)^2 + (3-2)^2 + (4-2)^2} = 2.6$ 

Source: Evans; Jamal; Foxal (2006).

Image 8 - Euclidean Distance formula

$$x_{ab}^2 = \sum_{j=1}^{n} (d_{aj} - d_{bj})^2$$

Source: Evans; Jamal; Foxal (2006).

From the questionnaire responses and the Euclidean Distance formula, it is possible to generate a rate of artifacts. The lower the grade of the artifact, the smaller the distance between IDEAL and ACTUAL Self-concept. Thus, it is possible to use this method to compare artifacts, characterize the user and predict its performance in

the market. It is remembered that each Self-concept questionnaire must be formulated according to the artifact to be evaluated. The user experience varies from artifact to artifact, and this difference must be considered. In the design process, the Self-concept can be used to explore the problem and evaluate artifacts in addition to helping to understand and characterize the user. There is a strong inverse correlation between Self-concept, Euclidean distance, and the performance of the artifact in the market. One of the few scientifically validated methods shows how this strong correlation happens, regardless of the artifact that is being characterized.

The artifact evaluation is a step of the design process used to evaluate the user's perception of the artifact. It can be formative when the test is made before being launched on the market or summation after the launch (Prates, 2006). Greenberg and Buxton (2008) emphasize the importance of defining which research problem to be solved before defining the techniques to be used in the evaluation so that this step is not harmful or ineffective to the process. It is common to see several companies and projects resort to usability testing in the artifact evaluation stage. Using Nilsen's (1993) heuristics, for example, aims to evaluate the artifact considering specific metrics: learning, efficiency, ease of memorizing, errors, and satisfaction. However, it is essential to remember that usability testing aims to measure the ability of the artifact to be usable. Therefore, it fails to measure the user experience concerning the artifact (Sharp, Rogers, Preece, 2007). A user experience assessment would encompass subjective factors and perhaps not directly linked to the use of the artifact (Norman; Nielsen, 2016). The importance of usability tests is undeniable and proven in several studies, but nowadays, there is a need to evaluate the artifact considering subjective criteria and the user experience.

### 3.3 SELF-CONCEPT IN THE SCOPE OF USER EXPERIENCE

According to Donald Norman (2008), the experience is not restricted only to the artifact but to the whole way in which the person experiences the world. Thus, it can be affirmed that it is impossible to understand the user experience by studying the artifact. Experience is the whole system involving a person when experiencing an artifact in a given situation.

Recently, the concept of user experience (UX) has been on the rise but always focused on the area of information technology (IT) and is linked to designing

a "good interface." However, the experience does not exist only in the interaction with digital artifacts but in the user's interaction with any artifact. Experience studies are still within the scope of subjectivity, as the concept of designing artifacts with a "good experience" does not yet exist. Authors such as Csikszentmihalyi (2008) and Damásio (2004) present psychological elements that are related to "good experience." Like attention, feeling, and pleasure.

For Marc Hassenzahl (2009), experience is an event, in a short space of time, not material, that will not give anything material, but that will change the way the person sees the world. For the experienced designer, aesthetic concepts are secondary. The main thing is the artifact's meaning and the experience it provides to the user. Understanding the user and their needs is essential to designing a "good experience." Marc Hassenzahl (2011) defines the universal psychological needs of human beings as autonomy (independence), competence, belonging, influence (popularity), pleasure (stimulation), control (security), physical health, self-realization, self-respect, and material realization. This means that it is crucial to understand the user from the point of view of the activity and the human point of view.

Schulze and Kromker (2010) state that the user experience is related to the degree of positive or negative emotions experienced by a user during and after using a specific artifact in a given context. This relationship will make the user loyal or not to the artifact. Sicart (2014) says that the combination of design and emotion came from the need to develop artifacts that stimulate human sensations and senses. A post-functionalist movement seeks to make artifacts that provide an experience for the user. Understanding emotion as a chemical and neural reaction that happens from outside to inside the person, Damásio (2005) considers three levels of emotions, the primary/universal, which is those that are independent of the culture (joy, sadness, for example), secondary/social that are more influenced by culture (shame and jealousy, for example) and in-depth (well-being, malaise, calm and tension). In addition to emotional design, other terms that appear when it comes to experience are Enjoyment (Sicart, 2014) and Flow (Csikszentmihalyi, 1990). While Enjoyment is linked to the understanding of providing a "good experience" to the user, as it states, an enjoyable experience depends significantly on the situation and context. Furthermore, Flow is related to the total immersion of the user in the activity he is performing.

Some authors present experience as a dynamic concept that depends on the situation and which is subjective (Law, 2009); for ISO 9241-210, it conceptualizes as "person's perceptions and responses resulting from the use and/or anticipated use of a product, system or service." With this need to develop artifacts with a "good experience," the need to conceptualize experience and develop techniques and methodologies to measure and capture it began to emerge. Even though there is a consensus that the experience is linked to the user's feelings and emotions and is still within the scope of subjectivity, there are still authors who propose a step-by-step on how to create a "good experience" but deliver a set of rules for making a good interface.

Self-concept has been shown to be a method capable of characterizing the user, evaluating artifacts, predicting its market success, and in recent studies, it has been used to understand the user experience. Such capacity can be justified by the relationship of studies on Self-concept with self-image and lifestyle. Self-concept unites the affective and cognitive understanding that a person has about him/herself (Schoutenn, 1991). Moreover, this understanding comes through experiences and interpretation of events throughout the individual's life (Shavelson; Hubner; Staton, 1979). Self-concept is a malleable construction since people act differently in different situations and are influenced by social roles and suggestions (Aaker, 1999). In addition to being able to change the individual's life. Especially after traumas that lead people to assess their Self-concept and lifestyle (Lake, 2009). Understanding that Self-concept can change throughout the user's life through experiences that have changed the way they see the world, they can have very similar concepts.

In conclusion, Self-concept has been proving to be a method capable of evaluating any artifact, providing qualitative and quantitative data. It is currently possible to realize the need to find and develop methods that evaluate the user experience and provide data that helps to understand the user experience. Current techniques and methods still aim to evaluate a "good interface" and not to understand the users' feelings involved in the evaluated experience. Self-concept may also be a method used in the user experience area. Therefore, the need to continue studying to validate it in different artifacts.

### 3.4 SUBJECTIVE CRITERIA OF FILM EVALUATION

In this section, theories on film evaluation will be presented to show the discussions that exist on the subject. Many of the concepts and theories come from the user experience field of entertainment and have been adapted for film. Even though the purpose of this research is not to delve into film-watching experience, because it is one of the objects of this dissertation, it is essential to present some concepts on the subject.

Film evaluations under a more subjective aspect, encompassing the user's experiences during the film, are not usually the primary approach adopted when referring to analysis in general. Turning around issues that seek to understand how the film is experienced, Schneider (2012) also emphasizes the importance of this type of analysis in promoting a greater understanding of the cognitive and affective processes before, during, and after watching the film. Turning to the construction of the analysis and evaluation processes of films, he asks about which criteria are formed, established, which variables can be observed, and completes stating that even lay audiences have their evaluation criteria. Thus, as he says: the criteria for subjective evaluation of films must be conceptualized, operationalized, and measured.

In this section, three approaches will be covered: the first, regarding the selection of the film, going from the choice to the influences of marketing and Uses and Gratuities (U&G), and the second, focusing on the theoretical approaches in the evaluation processes during the film watched, which involves both the points of view of the evaluation treated in a dependent way or as a mediator. Moreover, the third discussion is about the most critical determinants in film evaluation as a dependent variable of media effects.

#### 3.4.1 Selection

Divided into two approaches, the macro-level and the micro-level were explored to answer questions related to the process of choosing films. The macro is related to a more economical approach to film choice (such as: what makes a film a success?), while the micro focuses on the variables that matter in the consumer's decision-making process.

**Macro-Level Approach (macro-level):** The Macro approach brings a relationship between two "categories" of variables that are established through what

Schneider (2012) classifies as an "input-output" analysis. In the input, it is possible to see elements inherent to the film and its production and reception by the critics, while the output brings a more economic view, giving a more significant focus on issues related to the amounts collected and the audience. Despite presenting inconsistent results, three variables can be observed within this analysis those influence evaluations: Awards and nominations; Critical acclaim and professional analysis; Word-of-mouth (which contains a higher user/consumer rating).

Simonton (2002) promoted research that fits this aspect of the macro-level approach. However, by applying other variables, depending on criteria such as Oscar nominations and other similar events to draw parallels with the ability to predict the result for some awards and rankings, the results are not showed uniform, being relevant for some and weak for others. In another research, he observed that not all the criteria applied in these evaluations (Oscar nominations, for example) were relevant for lay audiences.

Subsequently, Simonton brings interesting findings that evidence this discrepant relationship between the results found in analyses made by professional critics and the general public. The line between film as art and film as business/entertainment can be observed more clearly.

Finally, among the variables presented in this macro perception, the most influential factors in choosing the public are the awards and user evaluation, the latter being still affected by the advertisements/marketing of the film, which offers an additional variable.

**Micro-level approach:** Before commenting on the characteristics and results of empirical research that fit this type of approach, some studies referring to what makes the user choose the film must be mentioned. Starting with Palmgreen and some others (Austin, 1986; Palmgreen et al., 1988; Palmgreen & Lawrence, 1991), their studies focused on the reasons that led users to go to the cinema, revealing dimensions that fled from aspects of film evaluations and their evaluation criteria.

Other studies question users' reasons for choosing a film, whether at rental stores or going to the cinema. Schneider mentions the research of Büch (2005), Cohen (1987), Austin (1981), De Silva (1998), Faber and O'Guinn (1984), Rössler (1997b) as some points in common that led to the choices of films are: recommendations/comments from friends/partners/acquaintances; film genre;

advertising/marketing; mouth to mouth. Other variables were mentioned as cast and reviews.

The study developed by Möller and Karppinen (1983) appears, interested in tracing the criteria of choice used by those who go to the cinema, the ability of prediction that these criteria offer regardless of preferences by genre or specific films, and the variation of these criteria through different audiences and genres.

The assumptions made were: context and person offer variables that influence the choice process, such as culture, distribution of the film or personality, lifestyle; the displacement to the cinema offers other experiences besides the film, thus being another variable; source of external information (availability of the film) and internal sources (opinions and attitudes) are distinguishable; and finally, motivation alters the importance that the users attach to different characteristics of the film.

As the main result of these assumptions analyses, the association between the film's objective and the opinions about its attributes is emphasized. Through this, Möller and Karppinen established a series of correlations between the criteria that weighed the most among users and the most consumed film genres, respectively. These criteria range from director and criticism to popularity and publicity about the film. From that, they proposed a model of the decision process in two phases for the choice of the film.

Despite offering an exciting understanding to explain the film selection process, the research leaves open points, and information about the measures used in the analysis process was sparse. In contrast, the utility of using film features to explain film choices was best reinforced in a study by Neelameghan and Jain (1999), who even made use of more subjective approaches as part of users' assessments, in addition to yielding more accurate forecasts for the market.

Influence of film evaluations: A brief study by Wyatt and Badger (1984) shows experimentally that targeted analyzes and reviews can affect their users' interest and post-film evaluations. Further on, Holicki and Krcho (1992) carried out a study in a controlled environment involving controlled reviews previously presented to their users to find out which elements had the most significant impact on the overall analysis and the interest in watching the film. Analyzes that contained descriptions of people or the plot had a minor degree of influence, while those that carried a content evaluation of the plot showed greater precision in increasing the interest in watching the film.

Another experiment carried out in a more natural environment, organized by Burzynski and Bayer (1977), consisted of analyzing audience ratings in cinema, infiltrating groups that made positive/neutral/negative comments before the start of the session, and taking some users to answer a questionnaire after the film. The relationship between the previous review type received and the content of the viewer's assessment was established, and those who received a pessimistic analysis, either on the visual effects or on the course of the plot, presented less positive assessments in their questionnaires. Experimental research has revealed that the film selection and its overall rating after being watched is influenced by previous reviews, which extends to recommendations from television guides and their users.

Entertainment search in film selection: Until recently, the most dominant approaches in Entertainment Research until recently involved U&G and humor management. It is assumed that the user watches a film to make up for something missing in his mood. However, if he/she watches films to relieve or try to leave the mood on a more positive level, why is there consumption of sad films? This brings an additional motivation: the search not only for pleasure but also for "truth" or "meaning," from the point of view of a hedonistic or eudaimonic relationship, which can be associated with the studies on experience by scholars who claim that experience is not only positive but can be harmful as well.

Theory of subjective quality assessment (TSQA): TSQA emerged with Wolling (2004, 2009) proposing to overcome gaps left by previous theories. Among them, it has sawed U&G with an approach that anticipates rewards or effects of use that are not necessarily related to specific features of films. Another theory is GSGO (gratifications sought, gratifications obtained; e.g., Palmgreen & Rayburn, 1982, 1985), which among many aspects, can highlight the relationship between evaluations and expectations, where one is weighed against the other. TSQA seeks to distinguish "expectation" from "evaluation" its evaluations are generated through the interaction of desired and unwanted expectations and the characteristics observed in the media product, unlike U&G, which can generate several characteristics based on the evaluations of the rewards, and the GSGO that weighs evaluations against expectations. Empirical studies will be able to show whether TSQA can be applied to other media or whether additional assumptions are needed,

although today, it seems useful for approaches that need to be explicitly related to evaluation processes and criteria.

### 3.4.2 Reception

One of the most debated concepts related to the reception of entertainment narratives is that "it is a convergent process, where all mental systems and capacities are focused on events occurring in the narrative" (Green and Brock, 2000), with attempts to expand this concept, hidden dimensions were revealed showing the importance of this approach with emphasis on the reception of narratives.

Modes of reception: With a focus on explaining the individual differences in the information processing of the same film, Suckfüll (2004) presents studies focused on the different modes of reception, later presenting four modes, namely: Identity Work, In-Emotion, Imagination, and Production, called MoRI (Modes of Reception Inventory). Among its advantages, presenting conceptualizations independent of the film's specifics is among the main ones. However, MoRI is not efficient as a foundation or alternative to access film evaluations because it aims to describe viewers' involvement without promoting any significant results for the evaluation processes and preserving much personal experience, which sounds inappropriate for the film evaluation process.

The reception modes promote an integrative perspective of this phenomenon. However, MoRI does not provide the necessary approach despite being well developed. When considering evaluations as a mediating variable, it can be seen that cinematographic evaluations awaken different receptive modes, being able (in speculation) until they are integrated into processes of provoking emotions in film experiences.

### 3.4.3 Impressions

It is common for many film analyses to be interpreted from the perspective of impressions, being seen as dependent variables on the results of the interaction between the viewer characteristics, the film, and its social context. Interpreting a film evaluation as a series of impressions caused by the film restricts it to evaluations of before and during the film only.

Nabi and Krcmar (2004) view that evaluations should be seen more as constituents of pleasure (Appreciation) than as a synonym for pleasure and taste. Three types of evaluation were differentiated by Schmitz, Knobloch, and Vorderer (1999) "Overall evaluation," "Quality evaluation," and "Involvement evaluation," opening the spectrum of evaluations beyond impressions. Conducting studies from these perspectives, their results questioned previous research claiming the relationship between excitement (user satisfaction) and the evaluation of the film, noting that it is possible to carry out a positive evaluation of the film regardless of the user's emotional state.

Oliver and Bartsch (2010) developed a multi-scale approach to access more differentiated audience assessments. From this approach, they distinguished four experimental dimensions. They introduced a new concept called Appreciation, as they described as "an experiential state that is characterized by the perception of deeper meaning, the feeling of being moved, and the motivation to elaborate on thoughts and feelings inspired by the experience" (Oliver & Bartsch, 2010, p. 76).

Overall, it is possible to say, considering the past theories mentioned before, there aren't many studies about the relationship between the Reward and its interaction with specific features of the film, the lack of appropriate instruments to measure the evaluations of these specific resources when evaluations are dependent on impressions.

Over the last two decades of the 20th century, the specific domain of dual processing models (Payne & Gawronski, 2010; Chaiken & Trope, 1999) strongly influenced the theorization of social and cognitive psychology. That has gone through many attempts to integrate these domain-specific approaches into more general double-processing models, distinguishing between associative and propositional processes supported by a broad evidential basis.

APE model: Gawronski and Bodenhausen (2006a, 2006b, 2007, 2009, 2011; Gawronski, Strack, & Bodenhausen, 2008) developed the APE model, which has become one of the most influential models in conceptualizing attitudes as mental representations. Two processes to the evaluative responses are the affective reactions and the evaluative judgments. The former is neither false nor true and may be some psychological reaction to something that has been witnessed. After the reasoning and validation of that affective reaction, the second arises in a propositional process of an activated pattern that leads to evaluative judgment.

The two responses to the specific process start from different concepts and need to be measured by different methods. While affection reactions must be accessed through indirect measures (psychological indicators, response time), evaluative judgments can be accessed more directly (questionnaires, interviews).

In the construction of several of these models presented above, such as Schnieder's SMEC (2012), many concepts from the user experience area and especially in the Entertainment area were used. It proved once again the lack of specific research in the area of understanding the experience of watching a film.

# 3.4.4 The Big Five Personality Factors

The Big Five is the five dimensions that describe personality traits on a broad and abstract level (Digman, 1989; Goldberg, 1993), being, in general, more strongly correlated with film preferences rather than the choice of film (Batinic, 2005). Neuroticism, Extraversion, Openness to Experience, Agreeableness, and Conscientiousness will be explained shortly below.

**Neuroticism:** Neurotic (or emotionally unstable) individuals are more likely to experience negative affective states such as anxiety, anger, or depressed mood. It was observed that they correlate negatively with preferences for action-adventure and fictional comedy and suspense (Weaver, 1991; Burst, 1999). It is also anxiety related to terror and action-violence. Some studies contradict this, with findings that indicate no effects on gender preferences, and others indicate complex relationships.

**Extraversion:** People of this dimension tend to be friendly, assertive, active, and excited, found (Weaver, 1991) positive associations with preferences for comedies, sexual comedies, violent films among boys, horror films among girls, and a high degree of appreciation for violent films.

**Openness to Experience:** People who fit this dimension tend to appreciate aesthetics, reflect their emotional states, are interested in adventurous activities, and are intellectually curious and liberal. With a preference for informational programs (Burst, 1999), they also appreciate violent content if it has aesthetic value. It is related to the knowledge expertise about films.

**Agreeableness:** They believe that most other people are reliable. They are usually friendly, empathetic, and generous. This dimension correlates negatively with

psychoticism, preferring light and entertainment programs, such as novels and comedies.

**Conscientiousness:** Described as orderly, self-efficacious, obedient, self-disciplined, and cautious. They correlate negatively with the preference for fictional suspense programs and slightly positively with entertainment programs.

Through these five personalities, some of the qualifiers for the Self-concept questionnaire were selected. Through the description of each personality, it was possible to extract the qualifiers: Anxious, Irritated, Depressive, Excited, Cheerful, Curious, Reflective, Light, and Afraid.

### **4 METHODOLOGY**

The Self-concept methodology as an artifact evaluation method can be divided into three macro steps, namely (i) Preparation, (ii) Questionnaire Elaboration, and (iii) Experience Mapping, where Preparation would be the researcher's immersion stage on the artifact to be evaluated and Defining the Challenge. As the application of the Self-concept depends on the artifact and has to be personalized, defining the challenge well before moving on to the following stages is very important. For this research, the challenge is to evaluate films in general.

The Questionnaire Elaboration stage is essential for the methodology since it is through the questionnaires that the data will be generated for analysis. It was noticed that the Focus Group use at this stage is well validated, but it was also noticed that the use of only a Literature Review on the challenge to raise the qualifiers. A Focus group is a qualitative method that marketing researchers use to gather opinions, feelings, and attitudes of a group of users towards an artifact. This method consists of a group interview where the participants will interact on the same subject. An experienced moderator conducts the interview, and in this case, the moderator is the researcher (HANINGTON, MARTIN, 2012, pg. According to Aaker, Kumar, and Day (2001), such group interviews, provided by the Focus Group, promote more spontaneity than possible in an individual interview. In this case, both techniques will be considered in this research, both the Literature Review on film evaluation and the realization of the Focus Group on the same theme. Another method used to select the qualifiers is the Didactic Brainstorming created by William J.J. Gordon in the 1950s. It is a brainstorming variant where only the moderator knows about the subject. This means the moderator must lead the interview without saying the main subject by asking and talking about random subjects and trying to take the group to the subject. This technique was not used in this research.

The Self-concept questionnaire consists of qualifiers, which represent the user's emotions and feelings regarding the activity performed with the user. In this case, it is the activity of watching a film for the first time. These qualifiers are arranged on a bipolar semantic differential scale, each qualifier with its opposite, and separated by the Likert Scale of 5 or 7 points. Two questionnaires are needed to experiment. Both are the same but applied at different times. The first must be applied before the user's interaction with the artifact, which aims to capture the user's

expectations regarding the experience with the artifact. Furthermore, the second after the interaction aims to capture how the user's actual experience with the artifact.

Moreover, it ended with the Experience Mapping stage, when the two Self-concept questionnaires were applied to participants. There is no consensus among researchers about the sample for the experiment nor about the familiarity of participants with the artifact to be evaluated. In research from Neves (2017), the experiment volunteers had access to the artifact (game), but it was unclear if the user had already played the selected games before the experiment. In the research from Mendes (2020), it was clear that users were not familiar with either the technology or the evaluated films and also had access to the artifact. However, there is other research, such as that of Toth (2014), that, again, it is not clear whether the user had prior knowledge about the artifacts before the experiment, in addition to the fact that the volunteers did not have access to the artifacts, only images. However, to evaluate films - which is the challenge of this research - it will be considered that the volunteer cannot have watched the selected film before answering the questionnaire. Furthermore, films with ten or more answers will be considered to score the film.

This method can provide quantitative data by comparing questionnaire 1 (before the interaction) and questionnaire 2 (after the interaction), generating a score for the artifact from Euclid's formula. The lower the score, the better the evaluation of the artifact because according to the Self-image Congruence Hypothesis, the smaller the difference between Actual Self and Ideal Self, the greater the chance of the user's adhesion with the artifact. In order to validate or not the use of the Self-concept to evaluate films, the generated scores will be compared with the scores of the film evaluation websites, IMDb and Rotten Tomatoes. In addition to quantitative data, it is also possible to generate qualitative data. The experiment will be described and detailed in stages in the next section.

### **5 EXPERIMENT**

This research aims to generate evidence on the use of Self-concept as a method for evaluating artifacts. Furthermore, to generate such evidence, films, in general, were chosen as the object of study. The study object was chosen because of the researcher's familiarity and for being an artifact that provides a more subjective experience for the user. Initially, the research was going to evaluate films that were playing in theatres in Greater Recife. However, due to the pandemic, the object of study became films in general, where the volunteer could choose films in streaming, cinema, or even download to watch them and answer the questionnaires. Next, the steps of the experiments will be described, as well as their results.

### **5.1 PREPARATION**

The preparation stage was used to define what would be evaluated by the Self-concept, the details of methods and techniques for the questionnaire elaboration stage, and how the experiment would be.

### 5.1.1 Challenge definition (i)

As already mentioned, this research was going to limit the sample to films watched in cinemas in Greater Recife. The immersion justifies the initial choice of cinema it provides to the filmgoer, who is necessary for all the attributes of the film to be perceived. However, because of COVID-19, the sample was expanded to films in general. In this way, the volunteer could watch films in the cinema, at home, through streaming, or broadcast on television. However, it had to be the first time to watch the chosen film. The challenge chosen was to evaluate films considering subjective criteria through Self-concept.

### 5.2 QUESTIONNAIRE ELABORATION (ii)

Having the challenge selected, the next step is to prepare the questionnaires. Moreover, for that, it was necessary to take the qualifiers. The researcher used both the Literature Review and the Focus Group to survey the qualifiers. Recalling that

qualifiers can be adjectives representing the user's feelings during the experience, but they don't need to be just words. A tip for selecting qualifiers is to think of the phrase "I feel" (eu me sinto) and select qualifiers that complete the sentence.

### 5.2.1 Literature review qualifier

Research about film evaluation presents much more technical criteria without considering the subjectivity of the experience of watching a film. Criteria such as script, direction, visual effects, and soundtrack evaluate different films, regardless of genre. Some questions that inquire about how the audience feels, what it thought, why it liked or disliked some films synthesize the central issues about the film evaluations, but it is rare to find more advanced studies that adopt a subjective perspective (Schneider, 2012), focused on the experience itself.

Only in the thesis "Measuring Subjective Film Evaluation Criteria: Conceptual Foundation, Construction, and Validation of the SMEC Scales" (2012) was it possible to find criteria more related to feelings. To develop a way to measure subjective evaluation of films, the author of the thesis emphasizes measuring the filmgoer's experiences during the film. Focusing on "research that includes data on the relationship between film content or film genre preferences and traits, needs, and further stable concepts." (Schneider, 2012, p. 46), he provides some personality constructs studies related to films.

One of these studies is the Big Five Personality Factors (Big Five), where it was possible to identify feelings related to users and their film choices. Neuroticism, Extraversion, Openness to Experience, Conscientiousness, and Agreeableness are dimensions that describe personality traits on an abstract and broad level (Digman, 1989; Goldberg, 1993). Furthermore, the first qualifiers were collected in the description of such dimensions. Neuroticism (or emotionally unstable) is more susceptible to experiences with adverse effects, which cause anxiety, anger, or depression. Extraversion is more friendly, active, and seeks excitement. Those who are Openness to Experience appreciate aesthetics, and tend to reflect on their emotional state, like adventure, are curious, liberal, and intellectual. Agreeable people tend to trust people. They are friendly, empathetic, generous, and like to help. Moreover finally, the Conscientiousness ones who are self-effective, orderly, zealous, entrepreneurial, self-disciplined, and cautious (Burst, 1999).

Table 5 – Qualifiers from a literature review about film evaluation

Schneider, 2012	Anxious, Irritated, Depressive, Excited, Cheerful, Curious, Reflective, Light, Afraid;
Mendes, 2020	Discouraged, Excited, With a dislike for the characters, With empathy for the characters, Emotionally not involved, Emotionally involved, Not impacted, Impacted, Inattentive, Attentive;
Total; Ozsoyoglu, 2016	Excited, Joy, Serene, Pensiveness, Sad, Interested, Distracted, Surprised, Rage, Anger, Annoyed, Apprehensive, Fear, Bored, Disgusted.

Source: Author (2021).

After reviewing the literature, the researcher could identify, raise, discover, know and seek information on the theme or subject (Richardson, 1999, p.63) about film evaluation. It was possible to select adjectives: Anxious, Irritated, Depressive, Excited, Cheerful, Curious, Reflective, Light, and Afraid. Even not being part of the literature review on film evaluation, some qualifiers by Mendes (2020) can be considered for this research. And not only does the research by Schneider (2012) present feelings, but the research by Total and Ozsoyoglu (2016) presents a map of emotion and uses it to recommend films to users.

### 5.2.2 Online Questionnaire

In order to validate the qualifiers from the literature review and find possible participants for the experiment. Remembering the first study object was cinema films, the questionnaire was limited to residents of Greater Recife (Recife and the metropolitan region), as it is the city where the researcher lives. The first section was divided into two sections to collect demographic data (age, gender, occupation, and education). The second section was to understand their relationship with the cinema. It was asked how often they go to the cinema, which cinema they usually go to, their preference for films, what takes them to the cinema, their choice of film, what they consider to be a "good film," and what feelings occur during a film they liked—ending with the collection of e-mail, not mandatory. All questions, except for two, were multiple-choice, where the user must choose an option, or with checkboxes, where the user can select more than one option (Appendix 1).

Most respondents were female (55) and 26-35 years old (26). Most of them were postgraduate students (43). Among respondents, 24 stated that they go to the cinema once a month, the majority, followed by 21 who stated that they go to the cinema at least twice a month. Sixteen say they rarely go to the cinema, while 12 said they go to the cinema once a week. This survey was applied before the pandemic in 2019. Among the genres of films they watch in the cinema. The most voted were Drama (58), Comedy (52), Science Fiction (50), Adventure (47), and Action (46). In this question, respondents could choose more than one option. Moreover, most respondents go to the cinema for leisure (66).

In the penultimate question, the adjectives selected with Schneider's (2012) research were presented so that the user could select more than one, with the option of "others" as well. The most selected adjectives were Reflective (69), Cheerful (60), Light (40), Curious (40), Excited (42), and Anxious (20). Irritated and Afraid received only 2 and 3 votes, respectively. Depressive received six votes. Participants who selected "others" added Nostalgic (27) and Distressed (12). There were still two participants who said it depends on the film. Only the qualifiers selected by Schneider (2012) were considered the only research, at the time, found by the researcher which considered subjective criteria for evaluating films. The other two studies were only found later by the researcher. Due to the few qualifiers found by the researcher at first, the ability to generate qualifiers with the literature review could be invalid. However, the other qualifiers selected in Mendes's (2019) and Total and Ozsoyoglu's (2016) research would be enough. It is possible to have enough inputs for the Self-concept questionnaire using the literature review. However, it is still essential to validate such qualifiers through an online survey with participants. After the online survey, the researcher went to the Focus Group method to raise more qualifiers.

### 5.2.3 Focus Group

A Focus Group is a qualitative method used in marketing research to collect opinions, feelings, and attitudes from a group of users about an artifact. This method consists of an interview group where participants will interact on the same subject. Such an interview is given by an experienced moderator, in this case, the researcher (Haning; Martin, 2012, p. 93). According to Aaker, Kumar, and Day (2001), this

interview, provided by the Focus Group, promotes greater spontaneity than possible in an individual interview. The Focus Group method is guided by the moderator, starting with the presentation of the subject of the interview and through questions for the participants so they can interact and discuss it.

The Focus Group of this research was held with 8 participants, seven men and one woman aged 30-35 years, the duration was around 30 minutes, and these participants were selected by collecting emails from the online questionnaire. The interview started with the presentation of the study and the researcher, continuing with the presentation of the participants where they presented themselves and which was the last film they watched in the cinema. The films were Toy Story 4 (1), Aladdin (2), Avengers Endgame (3), Spider-Man: Away from Home (1), and Rocketman (1).

During the interview, each participant talked about if they liked or not the film they watched and justified it. In this way, it became possible to identify feelings and emotions. Even though it was not the last film watched by all participants, the discussion was majority about the film Avengers Endgame. It was fascinating to see the division of opinions about the same film, especially for the film more talked about in 2019. In contrast, some found it monotonous because it is a very long film, and the action takes time to happen. Others found the script very surprising and with several striking and exciting scenes. Importantly, this research is not intended to consider the choice of film and why filmgoers and film watchers choose such films. Furthermore, although discussions about the same film have been enriched for research, it can also be considered a limitation since most qualifiers can be related to the genre of films like Avengers Endgame (IMDb: Action, Adventure, and Drama; Rotten Tomatoes: Sci-fi and Fantasy).

The qualifiers collected, referring to the feelings when watching a film in the cinema, were: Bored, Emotional, Frustrated, Excited, Stunned, Creepy, Surprised, Irritated, Agonized, Anguished, Glimpsed, Glazed, Shocked, Impacted, Entertained, Empathic, Disappointed, Tense, Joy, Anesthetized, Euphoric and Suspicious. In Table 6, it is possible to see all the qualifiers generated in both the Literature Review and the Focus Group. Moreover, the qualifiers highlighted in yellow represent those repeated in both collections or synonymous.

Table 6 – Qualifiers					
Literature Review (30)	Focus Group (23)				

Anxious, Irritated, Depressive, Excited, Cheerful, Curious, Reflective, Light, Afraid, Discouraged, With a dislike for the characters, With empathy for the characters, Emotionally not involved, Emotionally involved, Not impacted, Impacted, Inattentive, Attentive, Joy, Serene, Sad, Interested, Distracted, Surprised, Rage, Annoyed, Apprehensive, Bored, Nostalgic and Distressed.

Bored, Emotional, Frustrated, Excited, Stunned, Creepy, Surprised, Irritated, Agonized, Anguished, Glimpsed, Glazed, Shocked, Impacted, Entertained, Empathic, Disappointed, Tense, Joy, Anesthetized, Nostalgic, Euphoric and Suspicious.

Source: Author (2021).

Importantly, by asking why they liked the film or not, it was possible to capture their expectations. The participant who watched Rocketman (A biographical film about the singer Elton John) justified that the film was not good because he did not believe that what the film shows were the real story of Elton John. Moreover, it is not statistical proof, but the choice of the film can play an essential role in creating expectations and, consequently, in the user experience. As in the case of the participant in Toy Story 4, where he was taken to watch it by his girlfriend, he didn't have much to say about the film since it was not his choice and he had not even generated expectations about it.

### 5.3 EXPERIENCE MAPPING (iii)

In this section, the experiment will be described, which would be the application of the Self-concept questionnaire for film evaluation. Starting with the trial test, followed by the final questionnaire, then about the film evaluation websites, and finishing with the experiment results. The results were divided into two stages, quantitative and qualitative.

#### 5.3.1 Trial test

In order to start the film evaluation, the first questionnaire was made, with those qualifiers selected during the literature review and Focus Group. The form contained 26 questions (Appendix 2 and 3) with the qualifiers organized on the semantic differential scale and using the 5-point Likert scale, plus the questions about the name, chosen film, and location where they watched the film. Remembering the Self-concept questionnaire aims to evaluate an artifact by

comparing the difference between the ideal self with the actual self. This means two questionnaires are applied to participants, one before watching the film (ideal self) and others after watching the film (actual self). It has to be the participant's first time watching the chosen film to have better results. In order words, the first questionnaire aims to collect what the participant expects from the film (what he/she expects to feel when watching the film), and the second aims to collect the actual participant's experience with the film (what he/she felt watching the film).

Table 7 – Qualifiers Trial Test

Reflective	Carefree		
Нарру	Sad		
Excited			
	Unpunched		
Thrilled	Unchanged		
Light	Tense		
Enchanted	Frustrated		
Curious	Incurious		
Excited	Discouraged		
Animated	Down		
Anxious	Disinterested		
Creepy	Quiet		
Surprised	Indifferent		
Serene	With Fear		
Peaceful	Irritated		
Euphoric	Depressive		
Dying	Calm		
Nostalgic	Not nostalgic		
Carefree	Anguished		
Glazed	Off		
Shocked	Unshaken		
Impacted	Undisturbed		
Satisfied	Disappointed		
Anaesthetized	Bored		
Suspicious	Confident		
Entertained	Oblivious		
Empathic	Apathetic		
	(0004)		

Source: Author (2021).

This trial was tested with 12 participants, and three films were evaluated, "The Lion King" (2019), "Once Upon a Time... Hollywood", and "Hotel Mumbai." The feedback from the participants was that the questionnaire was very long and had many qualifiers with similar meanings that left them confused. In addition, two questionnaires were invalidated for not completing all questions, and some forgot to send a photo of the second questionnaire they completed at home. The dynamics of

printing and sending to the researcher made the process difficult, and limiting the sample to films in cinema made data collection difficult. Even so, some data can be considered in this collection.

The film "Lion King" (2019) had five questionnaires answered and had a score of 6,17. Remembering nearest to zero the score, better is the film rating. According to studies on Self-concept and marketing success, this score represents that the participants liked the film. This means that their expectations for the film were closer to the actual experience. On IMDb, the same film scored 6.9, and on Rotten Tomatoes, 52% (Tomatometer) and 88% (audience), and in order to compare the results, an equivalence was made. In Neves (2017), the equivalence consisted of the score resulting from Euclide's formula, then divided this average by the maximum value that a distance can have (which was 18.97), performing an inversion of values (subtracting from 1), and ended up with a percentage. In this research, the same process will be done, the average obtained by the difference between Q1 and Q2 was 6.17, and the maximum value that could be reached was 20.40. The division was made, and the result was 0.302. Reducing this value to 1, we reached the value of 0.698 or 69.8% or 6.98. With these results, both results of the websites are very close, mainly to the results of the IMDb site.

The film "Once upon a time .. Hollywood" (2019) had four responses, and the score generated was 7.30. While on IMDb, it was 7.6, and on Rotten Tomatoes, it was 85% (Tomatometer) and 70% (audience). Performing the exact equivalence, we reached a result of 0.642 or 64.2% or 6.42. Even though the previous film's score was closer to the website's, we still had very close results. However, two of the participants watched and responded to the two films, and their feedback was not so consistent with the result obtained. Participant 1 scored 5 for "Lion King" and 6.08 for "Once Upon a Time... Hollywood", which means that he liked the first film more than the second, and he says it fits since the first film matches his taste more. While participant 2 scored 5.39 for "Lion King" and 9.27 for "Once Upon a Time ... Hollywood", which means that he liked the first film more than the second, but he says it is incorrect since he liked quite the second film and did not like the first. This phenomenon can be explained by the fact that he didn't choose either film, was taken by relatives and did not know what to expect from the second film, but the film surprised him. Nevertheless, there can also be problems with the collection material. Only during the actual experiment can this be tested.

The pilot test pointed out problems in how to apply the questionnaire. The questionnaire was very long and tiring, so the number of questions was reduced from 26 to 10. Furthermore, instead of being printed, it was placed on the Google Form platform so that the participant could answer it at home from a computer or smartphone. In addition, the scope of the research has changed from "films watched in cinema" to "films in general." The COVID-19 Pandemic made it impossible for people to go to theatres.

## 5.3.2 Final questionnaire

The Self-concept questionnaire for evaluating films was transferred to the Google Forms platform, the 26 qualifier questions were reduced to 10 (Table 8), and the sample was expanded to films in general. Furthermore, to try not to interfere with the participant's choice, they could choose whatever film they like. The invitation was made by email. The researcher recommended some films but left them free to choose. What ended up not generating a large sample for a film, but it was possible to collect the evaluation of several films.

Table 8 – Final questionnaire qualifiers

i dibito o i i i i di quoti i i i di i quoti i i i di i di i di i di i di i di i						
Touched	Frightened					
Animated	Anguished					
Excited	Frustrated					
Surprised	Disappointed					
Gleam	Irritated					
Reflective	Bored					
Light	Tense					
Нарру	Depressed					
Curious	Indifferent					

Source: Author (2021).

Initially, only the name, the chosen film, and the place where he was watching were asked before going for the evaluation. However, it was seen that in some studies, the researchers collected more demographic data and ended with questions about what the participant thought of the evaluated artifact. So the researcher decided to add more demographic questions and end with non-mandatory questions about what the participant thought about the film. The final questionnaire is attached to the end of the document (Appendix 4 and 5).

- Name;
- Gender;
- Age;
- The film was chosen;
- Streaming/channel has watched the film;
- Mark on the 7-point Likert scale how much you liked the film. 1 for if you
  hated the film and 7 for if you loved the film. And the middle point (4) is
  the neutral point, in case you didn't like or dislike the film;
- Mark on the 7-point Likert scale how much you thought of the film's script. 1 being hateful and 7 for loving. And the middle point (4) is the neutral point, in case you didn't like or dislike the script of the film;
- Mark on the 7-point Likert scale how much you think of the main character in the film. 1 being hateful and 7 for loving. And the middle point (4) is the neutral point, in case you didn't like or dislike the script of the film.

Notably, both questionnaires must clearly describe what is being assessed for the participant. The first questionnaire explained that they were going to mark Ideal Self, which is the expectation they have about the film, and what feelings they expect to feel during the film. Moreover, in questionnaire two, they would be marking their Actual Self, the actual experience they had during the film, and what they felt when watching the film. Although the dissertation is in English, the experiment was conducted in Portuguese with residents of Greater Recife. Using the 5 or 7-point Likert scale is an option. However, studies have shown that the result obtained with the 7-point scale is better than those with a 5-point. Initially, the questionnaires used in this research were 5-point questionnaires to refer to the ratings of films that are generally 1 to 5 stars. Nevertheless, in the end, the 7 points were used.

#### 5.3.3 Film Evaluation websites

Even though concepts about what a "good film" is still within the scope of subjectivity, several websites provide scores for different films according to the

audience's evaluation. IMDb and Rotten Tomatoes are the best known, but others are also like AdoroCinema and Metacritic. For this research, the scores generated by the Self-concept were compared to the scores of the IMDb and Rotten Tomatoes websites.

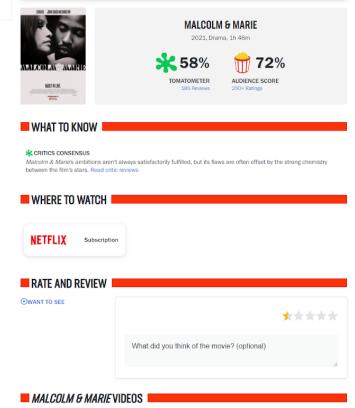
Both websites (IMDb and Rotten Tomatoes) generate scores for films according to the evaluation of their users. IMDb allows the user to rate the film from 1 to 10 stars, while Rotten Tomatoes allows it to rate it from 1/2 to 5 stars. In this way, they generate an average of the ratings of all users, IMDb presents a numerical score (1 to 10) and Rotten Tomatoes in percentage (0 to 100%).



Source: <a href="https://www.imdb.com">https://www.imdb.com</a>

Even with the same evaluation proposal, Rotten Tomatoes also presents the evaluation of critics, thus separating films into two categories: Tomatometer (average rating of film critics) and Audience Score (average rating of the general public). Significantly, because the average score is generated as users rate films, the score can change over time as people watch the film. Both offer the possibility for the user to register, generating a social network for evaluating films.

Image 10 - Rotten Tomatoes website print screen



Source: https://www.rottentomatoes.com/

As previously mentioned, an equivalence was made so that the Self-concept score could be compared to the scores of the film review websites. The score generated by comparing questionnaire 1 (Ideal Self) with questionnaire 2 (Actual Self) using the Euclid formula (Picture 4) was divided by the maximum result that could be generated, Likert 5 points (20.40) and Likert 7 points (18.97). After the division, the result was reduced by 1 (1 - division result), and that result was multiplied by 100 to get the percentage and multiplied by 10 to get the numerical score. Thus, it was possible to compare both the numerical scores of IMDb and the percentages of Rotten Tomatoes.

The Self-concept provides quantitative data and is a method already statistically validated in consumer behavior and marketing. Nevertheless, it also provides qualitative evaluation. The evaluation of films in this research will consider both results. The following sections will show the quantitative and then qualitative results of this research. The amount will be generated by comparing the Self-concept scores of the films with the most evaluation of participants in the experiment, with the notes of IMDb and Rotten Tomatoes, showing whether or not it is possible to evaluate films with the Self-concept. Furthermore, the qualitative one will be through

the analysis of the films favored by the experiment participants. In this way, it will be possible to evaluate if the Self-concept can reflect the actual user experience when watching the film and if it can be considered an instrument for recommending films.

## 5.3.4 Scoring Films

As a way of not interfering in the participants' choice of films, it was left free for them to choose any film they wanted to watch, but at the same time, some indications were made, all by e-mail. This resulted in more than 200 responses, but few films coincided. Only three films presented enough responses so that the average could be compared. As it was not found in the literature a certain amount of participants for the application of the Self-concept, films with ten or more answers were considered to compare the scores with the scores of the website.

Table 9 – Film score comparison

						Rotten T	omatoes
Film	Ans wers	Self- concept	Equivale nce	Equivale nce (%)	IMDb	Tomato meter	Audienc e
The Platform	26	4,3	7,9	79%	7	80%	71%
Love Wedding Repeat	10	3,94	8,1	81%	5,5	33%	37%
Miracle in Cell nº 7	10	3,15	8,4	84%	8,3	%	84%

Source: Author (2021).

The three most responded films were "The Platform" (2019), "Love Wedding Repeat" (2020), and "Miracle in Cell nº 7" (2019). All of the Netflix streaming platforms, but different genres. According to Rotten Tomatoes, the film "The Platform" is considered from the Horror, Sci-Fi, and Thriller genres by IMDb and Sci-Fi, Mystery, and Thriller. According to the comparison, the Self-concept score came very close to the scores of both IMDb and Rotten Tomatoes, validating the method. As in the film "Miracle in Cell nº 7", which is considered to be of the Drama genre (Rotten Tomatoes and IMDb), and in comparison, the average Self-concept coincided with the ratings of the film review websites. However, the same result did not occur with the third film.

In the film "Love Wedding Repeat," the Self-concept score didn't match with the scores on the websites. This film is categorized as Comedy by both sites, and IMDb also adds the Romance genre. Even with this comparison not working, it does not mean that the method is invalidated. While two films validated the method, one showed that perhaps a Self-concept questionnaire isn't enough to evaluate any film genre. Doubt can be taken by doing more Focus Group, making it focused on specific film genres, and then comparing the qualifiers raised in each one. Unfortunately was not foreseen for this research, which is a limitation. In addition to the limitation of not having considered all the genres of films in the Self-concept questionnaires, there is also the limitation of the sample; 10 participants are a small sample, mainly saying that the participants who answered about the film "Love Wedding Repeat" were in most women aged 46-55 years. As it is possible to perceive, the Self-concept is also a method that allows the evaluation of artifacts considering different aspects such as age group, profession, and locality.

Table 10 – Film score comparison 2

						Rotten T	omatoes
Film	Ans	Self-	Equivale	Equivale	IMDb	Tomato	Audienc
	wers	concept	nce	nce (%)		meter	е
The music of silence	5	3,42	8,3	83%	6,6	0%	80%
Enola Holmes	6	6,34	6,6	66%	6,6	91%	56%
Project Power	4	6,35	6,6	66%	6	61%	47%
Over the moon	3	3,12	8,3	83%	6,5	81%	74%
Soul	4	6,06	6,8	68%	8,1	95%	88%
The Devil All the Time	4	4,49	7,6	76%	7,1	65%	79%
Godzilla II	3	5,88	7,1	71%	6	43%	83%
Sergio	3	3,8	8,1	81%	6,1	43%	51%
20th Century Women	3	3,06	8,5	85%	7,3	88%	74%
Work it	2	5,59	7	70%	6,1	85%	62%
Lady and the Tramp	2	3,5	8,1	81%	6,3	66%	50%
WW84	2	5,26	7,2	72%	5,4	59%	74%
Dolittle	2	2,29	8,9	89%	5,6	14%	76%
The	2	2,55	8,7	87%	6,4	91%	64%

Willoughby							
Dangerous Lies	2	3	8,5	85%	5,3	%	%
From the Land of the Moon	2	2,58	8,7	87%	6,7	32%	65%
Claire Darling	2	3,12	8,4	84%	5,9	93%	44%
The Old Guard	2	5,08	7,5	75%	6,6	80%	70%

Source: Author (2021).

More than 200 responses were collected, but many of the films were only evaluated by one person, which was not considered for this stage of the analysis. However, in Table 10, it is possible to see other films evaluated by more than one person, equivalence, and comparison with scores from the IMDb and Rotten Tomatoes websites. During the comparison, it was possible to notice that the scores of each website can also vary. Moreover, some scores of the Self-concept coincided with the scores of one of the websites and not with the other. It was considered that relative values would be equal or less than 1 point difference for numerical scores and equal or less than 10 points difference for percentage scores. This again validates the method since of the 18 films in Table 10, 8 of them had the Self-concept score compatible with the score of IMDb or Rotten Tomatoes.

Importantly, film scores generated with Self-concept questionnaires with both the 5-point and 7-point Likert scales were considered. However, the responses were not mixed. Next will be presentations on the three films with the highest number of responses and differences between the participants' IDEAL experience and ACTUAL experience.

### 5.3.4.1 "The Platform"

The film "The Platform" is a film released in 2019 by Netflix that tells the story of a vertical prison where prisoners stay in pairs, and once a day, a platform with food passes by each floor for the prisoners to feed. It was a much-talked film, mainly because of the subliminal messages and the ending that contained more than one interpretation.

Participants expected to feel mainly reflective, tense, and curious from the data collected by the first Self-concept questionnaire (IDEAL Experience). In table 11 below, you can see how what the participants expected to feel when watching the film was not significantly different from what they felt when watching it. The results are marked to represent the results of the first questionnaire, and the purple ones represent the second. This comparison makes it possible to encapsulate the experience and understand what the user expected and what they got out of the film.

Table 11 - "The Platform" analysis

Table 11 – "The Platform" analysis							
IDEAL SELF							
	1	2	3	4	5		
Touched				46,15%		Frightened	
Animated			26,92%		26,92%	Anguished	
Excited			69,23%			Frustrated	
Surprised	38,46%					Disappointed	
Gleam			53,84%			Irritated	
Reflective	53,84%					Bored	
Light				57,69%		Tense	
Calm			34,61%			Anxious	
Нарру			50%			Depressed	
Curious	53,84%					Indifferent	
		Α	CTUAL SE	LF			
	1	2	3	4	5		
Touched					38,46%	Frightened	
Animated					53,84%	Anguished	
Excited			38,46%			Frustrated	
Surprised	50%					Disappointed	
Gleam					30,16%	Irritated	
Reflective	69,23%					Bored	
Light					76,92%	Tense	
Calm					46,15%	Anxious	
Нарру			46,15%			Depressed	
Curious	61,53%					Indifferent	

Source: Author (2021).

The film "The Platform" is considered a thriller, which justifies why the participants stated they would like to feel fear, anguish, and tension. As shown in table 15 above, there was not much difference between the IDEAL and ACTUAL experiences of the participants regarding this film since the feelings marked in the first questionnaire were mostly the same as those marked in the second, changing only the intensity of the feeling. This resulted in scores closer to 0, as shown in Table 12 below.

Table 12 – "The Platform" analysis

		ianomi amanyono	
Participant 1	3,32	Participant 14	6,16
Participant 2	3,61	Participant 15	5,74
Participant 3	3,87	Participant 16	3,32
Participant 4	3	Participant 17	5,1
Participant 5	3,61	Participant 18	3,61
Participant 6	3,61	Participant 19	4,36
Participant 7	2,65	Participant 20	4,58
Participant 8	7,48	Participant 21	5,39
Participant 9	4,69	Participant 22	5,39
Participant 10	2,65	Participant 23	1,41
Participant 11	5,2	Participant 24	1,73
Participant 12	7	Participant 25	4,24
Participant 13	6,48	Participant 26	4

Source: Author (2021).

This type of analysis makes it possible to separate the participants by market niches, such as age and education. Furthermore, it is possible to understand the favorite films of each niche and even of each person. For the 26 participants from Recife who answered this survey, the film "The Platform" did meet their expectations, providing fear, anxiety, anguish, and reflection. Without generating frustration, boredom, or disappointment.

### 5.3.4.2 "Love Wedding Repeat"

The film "Love Wedding Repeat" is a Netflix romantic comedy released in 2020. It is about showing the various realities and versions of what could happen on the same day at the wedding party. In this film, ten responses were collected from 10 different participants. From the result seen in table 13 below, it can be seen that the participants expected to feel touched, excited, surprised, gleam, reflective, light, calm, happy, and curious. However, when we look at what they felt, most scored neutral on more than one question.

Table 13 – "Love Wedding Repeat" analysis

IDEAL SELF							
	1	2	3	4	5		
Touched	40%					Frightened	
Animated	50%					Anguished	
Excited		40%	40%			Frustrated	

Surprised	30%	30%	30%			Disappointed
Gleam		40%				Irritated
Reflective	40%		40%			Bored
Light	70%					Tense
Calm	50%					Anxious
Нарру	60%					Depressed
Curious	40%					Indifferent
		Α	CTUAL SE	LF		
	1	2	3	4	5	
Touched			70%			Frightened
Animated			50%			Anguished
Excited				40%		Frustrated
Surprised			40%			Disappointed
Gleam			40%			Irritated
Reflective					40%	Bored
Light	50%					Tense
Calm			40%			Anxious
Нарру			60%			Depressed
Curious			30%	30%	30%	Indifferent

Source: Author (2021).

As it is possible to observe, even though the majority marked the neutral point, this way does not demonstrate a great distance between the IDEAL and the ACTUAL. Nevertheless, it is possible to notice a discrepancy between the first and second questionnaires in some feelings, as is the case with Reflective and Bored, where the majority scored closer to Reflective in the IDEAL and Bored in the ACTUAL. Furthermore, the same happened with Curious and Indifferent. This shows that the information obtained by the Euclidean distance is not the only data possible to be collected by the Self-concept. Even though the average score gave the film a good grade, some participants felt frustrated, bored, and indifferent about the film.

Table 14 - "Love Wedding Repeat" analysis

Participant 1	2,65	Participant 14	0
Participant 2	2,45	Participant 15	4,9
Participant 3	4,8	Participant 16	5,74
Participant 4	4,24	Participant 17	2
Participant 5	8,25	Participant 18	4,36

Source: Author (2021).

As shown in Table 14 above, both the average score obtained from the 10 participants and even looking at the score per participant. The film was well evaluated. However, by looking at table 13, the participants' expectation of the film

was not met. This can justify the film's poor evaluation of the rating sites considered in this paper (Table 9). The film's score on IMDb was 5.5 and on Rotten Tomatoes was 33%. Even though the average score generated by the Self-concept did not correspond to the scores of the sites, by analyzing the participants' answers, it is possible to understand the low score of the sites.

#### 5.3.4.3 "Miracle in cell no 07"

The film "Miracle in cell no 07" (7 Kogustaki Mucize) is a 2019 drama available on Netflix and tells the story of a mentally ill father who was wrongly accused of murder and went to prison. It is based on a 2013 Korean film. For this film, 10 participants responded to the survey.

Comparing the two films described above, this was the one with the best evaluation from the participants and the one that came closest to the scores of the film rating sites. Looking at table 15 below, one can see that the participant's responses in the first and second questionnaires were the same or very close. In other words, the participants expected to feel touched, surprised, reflective, tense, anxious, and depressed, and the film provided the same expected feelings.

Table 15 – "Miracle in cell no 07" analysis

	IDEAL SELF					
	1	2	3	4	5	
Touched		50%				Frightened
Animated		40%		40%		Anguished
Excited			90%			Frustrated
Surprised		60%				Disappointed
Gleam			80%			Irritated
Reflective		70%				Bored
Light				50%		Tense
Calm				50%		Anxious
Нарру			40%	40%		Depressed
Curious			60%			Indifferent
		Α	CTUAL SE	LF		
	1	2	3	4	5	
Touched	60%					Frightened
Animated				40%		Anguished
Excited			50%			Frustrated
Surprised		70%				Disappointed
Gleam			50%			Irritated
Reflective	50%	50%				Bored

Light			60%	Tense
Calm			50%	Anxious
Нарру		40%	40%	Depressed
Curious	70%			Indifferent

Source: Author (2021).

Table 16 – "Miracle in cell no 07" analysis

Participant 1	4,47	Participant 14	2,65
Participant 2	4,36	Participant 15	2
Participant 3	3	Participant 16	3,61
Participant 4	1,73	Participant 17	2,24
Participant 5	2,24	Participant 18	5,2

Source: Author (2021).

Moreover, such similarity between the IDEAL and ACTUAL experience is also proven by analyzing the score of each participant, where all scored near 0. Furthermore, the feelings of frustration, disappointment, and boredom did not appear in the answers.

#### 5.3.5 Participants favorite films

There is another way to analyze the data generated by using Self-concept questionnaires besides rating the artifact. Another way is to analyze market niches, such as age group, gender, education, and region. For this research, the favorite films of participants who answered the questionnaire for more than one film will be evaluated. Remembering that the sample of 4 participants has no statistical basis, it was the amount achieved by the research. Only 4 participants answered the questionnaire on Self-concept for more than one film. Even without statistical validity, this analysis was considered to show the flexibility of the method and to address another area of interest in the film market, film recommendation systems for users. For this stage, the equivalence of the Self-concept scores so that they could be compared with the scores from the film assessment websites will not be done. The analysis will be done by comparing the Self-concept score with the score given by the participants through the questions:

 Mark on a Likert scale of 7 points how much you thought of the film. Being 1 if you hated the film and 7 if you loved the film. And the middle point (4) is the neutral point if you neither liked nor disliked the film.

- Mark on a Likert scale of 7 points how much you thought of the film. Being 1 if you hated the film and 7 if you loved the film. And the midpoint (4) is Mark on a 7-point Likert scale how much you thought of the screenplay.
- Mark on a Likert scale of 7 points how much you thought of the main character in the film. Being 1 if you hated it and 7 if you loved it. And the middle point (4) is the neutral point, in case you neither liked nor disliked the film script.

In other words, three questions at the end of the Self-concept Questionnaire 2 were added for the participant to mark on the 7-point Likert Scale between whether they Hated (1) the film, the script, and the character or whether they Loved (7) the same categories. Furthermore, having a neutral point (4). Such categories were chosen through research in film evaluation, which stated that there is a relationship between how much the user likes the film and how much they identify with the main character. Furthermore, the screenplay is considered by researchers to be one of the main categories that classify the film to win Best Film categories in festivals such as Golden Globe and Oscar. Thus, 4 participants had their answers selected for this stage.

Table 17 – Participant 1 favorite films

		T articipant 1			
Participant 1					
Female	_	46-55 age			
			На	ated / Loved (1	<b>-7</b> )
Films	Self-co	ncept	Film	Screenplay	Character
Work it	8,5	54	6	4	2
Project Power	9,2	27	2	2	4
Over the moon	4,	12	6	6	7

Source: Author (2021).

Participant 1 completed the Self-concept questionnaires for three films, "Work It" (2020, Comedy and Musical), "Project Power" (2020, Action, Mystery, Thriller, Crime, and Sci-fi), and "Over the Moon" (2020, Animation, Adventure, Comedy, and Musical). It was considered that the lower the Self-concept score, the better the evaluation and that the highest score would be 18.97 (7-point Likert Scale). It can be said that participant 1 liked only the film "Over the Moon," which coincides with the evaluations that were attributed to the film, script, and character. The same occurred with the film most poorly evaluated by the participant, "Project Power," which

coincided with being the most poorly evaluated by the Self-concept and the participant in the film, script, and character categories.

Table 18 - Participant 2 favorite films

Participant 2							
Male			46	46-55 age			
			Hated / Loved (1 – 7)				
Films	Self-co	ncept	Film	Screenplay	Character		
Lady and the Tramp	4		6	6	6		
Project Power	2,4	<b>4</b> 5	4	4	5		
Over the moon	3	3	6	6	5		
Enola Holmes	3,7	74	6	5	6		

Source: Author (2021).

Considering again the highest score that the Self-concept can generate is 18.97, it can be said that participant 2 liked all the films he watched, being "Lady and the Tramp" (2019, Adventure, Comedy, and Drama), "Project Power" (2020, Action, Mystery, Thriller, Crime, and Sci-fi), "Over the Moon" (2020, Animation, Adventure, Comedy, and Musical) and Enola Holmes (2020, Action, Adventure, Crime, Mystery, and Thriller). However, according to his Self-concept, "Project Power," his favorite film would have been "Lady and the Tramp" according to his assessment of the film, screenplay, and character categories, it would be "Lady and the Tramp." However, again, both with the Self-concept and in the scores by category, all the films were rated well for participant 2, as none of the categories received a score below 4, and where the highest score obtained by the Self-concept was 4.

Table 19 - Participant 3 favorite films

		· and part o	iavonio imino		
		Participan <sup>i</sup>	t 3		
Male			26	6-35 age	
Hated / Loved (1 – 7)			<b>-7</b> )		
Films	Self-co	ncept	Film	Screenplay	Character
The war with grandpa	5,3	39	6	5	7
Soul	6,6	33	5	4	6
WW84	3,1	16	3	3	4
The Devil All the Time	4,2	24	6	6	4

Source: Author (2021).

While for participants 1 and 2, it is possible to see a certain similarity between the Self-concept results and the assessments by category. With participant 3, there is already a more significant discrepancy. While by Self-concept, his favorite film would have been Wonder Woman 1984 (2020, Action, Adventure, Fantasy), by category rating (film, screenplay, and character), it was the film he liked least, as two of the categories went below 4. According to the literature, when the user is going to evaluate the film, it may happen according to personal taste or by simply considering whether the film is good or not according to technical characteristics. This discrepancy may be the case, as it may also show that perhaps the qualifiers selected cannot evaluate any film.

Participant 3 watched three more films besides "Wonder Woman 1984", "The War with grandpa" (2020, Comedy, Drama and Family), "Soul" (2020, Animation, Adventure, and Comedy), and "The Devil All the Time" (2020, Crime, Drama, Thriller, Mystery). According to Self-concept, the minor favorite film was 'Soul,' and according to categories, the favorite film was 'The War with Grandpa.' However, since none of the scores generated by the Self-concept came close to the maximum score (18.97) or it is half (9.5), it can be said that participant 3 liked all of them, and this can be proved in the evaluation of the categories, since none of them got better than 4, except for the film "Wonder Woman 1984".

Table 20 - Participant 4 favorite films

Table 20 – Farticipant 4 favorite films					
Participant 4					
Female		36	6-45 age		
		Ha	ated / Loved (1	<b>-7</b> )	
Films	Self-concept	Film	Screenplay	Character	
Queen	2,65	6	6	7	
Logan	2,45	5	4	5	
I'm Thinking of Ending	11,53	1	2	4	
Things					
Love Story	1,73	5	5	6	
Love Song	4,69	6	6	7	
The Breadwinner	2,24	6	6	7	
What we wanted	4,9	5	6	6	
Hillbilly Elegy	2,65	6	7	7	
Little Italy	2	5	4	4	

Source: Author (2021).

Nevertheless, participant 4 answered the Self-concept questionnaire for nine different films. While with participant 3, a discrepancy was observed between the preferred film of the Self-concept and according to the categories. With participant 4, this did not occur. The film "I am Thinking of Ending Things" (2020, Drama, Thriller, Mystery, and Horror) received a Self-concept score very close to the maximum score

(18.97), which shows that the participant did not like the film, which is evidenced in the evaluation of the categories where two of the categories received a score below 4. Even though the highest-rated film for Self-concept (Love Story - 1970, Drama, Romance) was different from the highest-rated film in the categories (Hillbilly Elegy, 2020, Drama), in both, there was no discrepancy. Both the Self-concept score shows that participant 4 liked both films and the evaluation by the categories of film, script, and character. In other words, except for "I am Thinking of Ending Things," the participant liked all the watched films.

In order to use Self-concept as a method to recommend films to users, it would be necessary for more tests with users and more films evaluated by them to have statistical validity. However, with this data, it is already possible to say that for Participant 1, Action, Mystery, Thriller, Crime, and Sci-fi films would not be a good recommendation, but perhaps films from the Animation, Musical, and Comedy genres would be good recommendations. Even though Participant 2 is more open to diverse film genres, he seems to prefer Sci-fi, Action, and Animation films. While Participant 3 seems to like Action, Adventure, Fantasy, and Comedy films more. Furthermore, Participant 4 has a preference for Romance and Drama.

#### 6 CONCLUSIONS

In this chapter, the conclusions of the research will be presented. It starts with the Initial Considerations section, where the first considerations about the experiment will be presented. Followed by the presentation of the Limitations and Difficulties encountered during the research, mainly about the experiment. There will also be a specific section for future work and ending with the Final Considerations that will close the research and the conclusions chapter.

#### 6.1 INITIAL CONSIDERATIONS

Film evaluation is an area with more than one strand. The analyses aim to break the film down into parts and interpret them, and the expert critique, which considers technical criteria to classify a "good film." Also, have the film evaluation consider subjective criteria that tend to consider the filmgoer in the equation and the experience of watching films. While film analysis and critic review, there are studies and methods on how to write it, especially in Brazilian studies on the analysis of Brazilian films, which aims to identify social and cultural elements. The area of the experience of watching a film and subjective evaluation criteria are still little studied and lack methodology. However, there is a need for systems and mathematical formulas to recommend films to filmgoers in the market better. Moreover, it is necessary to characterize the user and understand the user experience.

Given this need, the dissertation described here presents the Self-concept as a method with the possibility of being applied in the film evaluation area. Despite the quantitative limitations of the experiment, it was possible to collect data about the user's IDEAL and ACTUAL experiences with several films that may be important and used in the market. Through this experiment, it was possible to generate an average for three films ("The Platform," "Love Wedding Repeat," and "Miracle no 07") where two of them had a score close to or equal to those of the film rating sites (IMDb and Rotten Tomatoes). Moreover, characterize four participants when about their film preferences.

Self-concept is a method that can evaluate several artifacts, characterize users, encapsulate the experience, and predict market success. Such capacity is justified by the possibilities of data analysis collected by the methodology used, from

the survey of qualifiers, preparation of questionnaires, and application, where the user's IDEAL and ACTUAL experience is collected separately. In this research, a comparison between the score averages generated through the participants' answers per film, it was possible to compare such averages with the filmgoers' ratings on the IMDb and Rotten Tomatoes websites. Only three films had a sample equal to or larger than 10 participants, and two of the films had a Self-concept score matched to the score of the sites. The film "Love Wedding Repeat" had no compatibility between the Self-concept score and the score of the film rating websites. While in the Self-concept, the film scored high, it did not score well on the websites. However, when analyzing the difference between the first and second questionnaires of the participants, it is possible to reach the same conclusion presented in IMDb and Rotten Tomatoes. The film did not meet expectations, generating particular frustration, disappointment, and boredom.

Analyzing per participant, it was possible to characterize the user and understand the film preference. This method also allows the analysis by market niches, which was not considered in this study due to sample limitations. However, by analyzing participants who watched more than one film, it was possible to understand their film preferences. Showing that perhaps the Self-concept can also be used as a method for a film recommendation since there is evidence - through studies that present the statistical validity of this method - of its ability to characterize the user. Remember that this research aims to generate evidence for the use of Self-concept as a method of evaluating artifacts.

Furthermore, such evidence was generated by applying it to films in general (feature films of any genre). It was possible to realize that the user expectation (IDEAL experience) about the film may vary depending on its genre, which does not mean that it is necessary to generate more than one Self-concept questionnaire according to the genre, but that the same questionnaire needs to contemplate all genres. Furthermore, such research may not have generated the necessary evidence to generate more statistical validity to the method due to some limitations shown in the next section. However, it showed more than one possibility of analyzing the Self-concept data and evidenced the flexibility of the method when applied in areas other than design.

As stated earlier, the first limitation of this research was that only one Focus Group was conducted with participants of the same age group who ended up discussing the same film (Avengers Endgame). The online questionnaire and literature review made it possible to circumvent this limitation to select qualifiers that contemplated more than one film genre. However, it would be interesting to have more than one Focus Group to generate more insights and compare the qualifiers raised in each interview. However, with only one Focus Group, generating a questionnaire that contemplates more than one film genre was possible.

The second limitation is the number of responses per film. In order to leave the participants free to choose the film, they would like to watch and collect the most significant number of responses, no limits on film or genre were imposed. This allowed for a high engagement of the participants with the survey since more than 200 responses were collected, but only three films had enough responses to have the average compared to the film review websites. The film with the most responses was "The Platform" (2019), with 26 responses, while several other films got less than five responses. According to the studies found, there is no minimum sample for this method. However, the scores generated by the film evaluation websites (IMDb and Rotten Tomatoes) of the same film were 168,496 (IMDb) and over 1,000 (Rotten Tomatoes). Given this scenario, the sample of 26 responses is tiny. However, the website's evaluations are global, while this research was done at a Brazilian level, more specifically of filmgoers from Greater Recife (Pernambuco). It was also noticed that at the beginning, the engagement of the participants was much higher than towards the end of the experiment. This was mainly due to the new COVID-19 pandemic that caused many people to stay at home and choose to watch films and series in their spare time. Nevertheless, as work resumed remotely or semiattendance, participants started watching fewer films.

The third and final limitation of this research was the change of the research object from cinema films to films in general. As shown in the literature review, watching films in the cinema generates a greater immersion for filmgoers since they can better perceive all the film elements, while films watched at home may have technical limitations (television, internet, for instance). Moreover, several distractions can interfere with watching the film's immersion and experience. This change was

also one of the reasons for choosing not to limit the participants to one film or film genre.

Self-concept is a simple method to apply, compared to others for evaluating artifacts and even those for evaluating films, and it can be applied remotely, without the presence of a researcher. This happened with this research, the questionnaires were made available online, and participants were invited by email. In this way, and with the right platforms, it is possible to collect responses worldwide securely and virtually, making the self-concept an excellent method to apply, especially in the current pandemic scenario. However, not having the researcher close means that some answers cannot be considered because of errors in answering the participants' questionnaires.

#### 6.3 FUTURE WORKS

For future work, it is recommended to apply to more than one Focus Group to reformulate the questionnaire and generate more insights and qualitative data about the experience of watching films. Apply the technique for films watched in the cinema as well, so that there is a comparison and to ensure that the ACTUAL experience of watching the film is with optimal immersion.

Regarding the questionnaire, make it more intuitive for the participants. The Likert scale does not need to be used only with numbers. It can use "+" to represent the intensity of the qualifier. Using the phrases "I would like to feel" and "I felt" can help make the questionnaire more intuitive for participants. And the application of the questionnaire to the larger sample.

#### 6.4 FINAL CONSIDERATIONS

It remembered the general objective of this research which aims to generate evidence on the use of Self-concept as a method for artifact evaluation to be inserted into the Design Process and be used in other areas such as film and user experience. It was possible to reach this objective across the application of such a method in the artifact films. Through the experiment, it was possible to present one more way of applying the Self-concept, presenting it as a method that can be

integrated into the area of design to characterize the user, evaluate artifacts, and encapsulate the user experience.

Self-concept is used in consumer behavior and marketing to understand the buying behavior and characterize the user. Furthermore, in recent years it has been applied in design to evaluate various artifacts and predict their market success. Several studies show the application of Self-concept to characterize the user and evaluate artifacts. There is still little evidence of use. Neves (2017) uses Self-concept to evaluate smartphone games, and Mendes (2020) uses it to evaluate VR glasses; both go beyond the evaluation of the artifact and bring concepts of user experience. They present Self-concept as a method capable of encapsulating the user experience. Furthermore, following this line, one more piece of evidence of the use of Self-concept for artifact evaluation was generated in this research by evaluating several films.

The evaluation can be done in several ways, considering technical criteria (script, direction, and editing) in major festivals such as the Oscars and Golden Globe. It can also be done in the form of analysis, which breaks down the film and makes an interpretation of each part, usually trying to understand the cultural elements and social criticism. This type of analysis has been found a lot in Brazilian research, where the researcher would analyze Brazilian films and point out social critics and cultural elements of the country. However, few studies consider subjective criteria in film evaluation. This type of evaluation was found in Schneider's research (2012), and it is an evaluation that encompasses the entire user experience (before, during, and after) of watching a film. It is not yet possible to identify a concern in evaluating and understanding the film-watching experience, so those experience concepts from the entertainment field are still used to compose the theory on film evaluation. However, there is a concern with film recommendation systems, encompassing the user's characterization of film preferences.

During the development of the Self-concept questionnaire, through the Focus Group and Literature Review, it was possible to realize that the user's expectation of the film varies from genre to genre, but that it is still possible to use the same Self-concept questionnaire to evaluate several films. This research considered feature films without limiting by genre or viewing location or platform. Moreover, during the experiment, two of the three films with the most significant sample (responses from the volunteer participants) had the Self-concept score matched with IMDb and Rotten

Tomatoes scores. Films with different genres and even so, it was possible to evaluate with the same Self-concept questionnaire. Furthermore, even what did not generate a compatible score, through the analysis of the answers, it could be concluded that the average Self-concept does not correspond to the user experience because the average showed that the participants liked the film (that the ACTUAL experience was close to the IDEAL experience), when analyzing the scale, they had a particular disappointment and frustration about the film.

The film "The Platform" (2019) is considered a Thriller, released by the Netflix platform. This film's score on IMDb was seven, and on Rotten Tomatoes, it was 71%, very close scores. With the Self-concept, the mean generated was 4.3, representing the distance between the IDEAL experience (what the participant would like to feel when watching the film) and the ACTUAL experience (what the participant felt when watching the film), which means that the distance was not significant and that the participants enjoyed the film. Making the comparison of the Self-concept score with those of the sites more straightforward, the equivalence was 7.9 or 79% (Table 9). Moreover, when we analyzed the participants' answers (Table 11), we noticed that the feelings corresponded in both questionnaires. What changed was their intensity on the scale. The same occurred with the Drama film "Miracle in Cell no 7," also available on the Netflix platform. The distance between IDEAL and ACTUAL was even smaller, 3.15, and the equivalence was 8.4 and 84%. On IMDb, the film had a rating of 8.3, and on Rotten Tomatoes, 84%, again both sites showed close scores, and the Self-concept showed the same result.

Furthermore, analyzing the participants' answers, it is also possible to notice that most of the feelings are repeated in both questionnaires, only changing their intensity on the scale (Table 15). The Romantic Comedy, "Love Wedding Repeat," did not have the Self-concept score corresponding to the sites' scores. While the distance between the IDEAL and ACTUAL was 3.94, generating the equivalence of 8.1 and 81%, the sites' scores were 5.5 and 37% (IMDb and Rotten Tomatoes, respectively). The proximity of the sites' scores was not as great as for the other films, but the conclusion that can be drawn is that the film was not well evaluated by the filmgoers, a conclusion that the average Self-concept cannot reach. However, if we evaluate according to the participants' answers (Table 13), the interpretation that the participants liked the film does not become real since many of the feelings marked in the first questionnaire were not confirmed in the second, and in some

cases, the opposite feeling occurred. It generated disappointment and frustration in the participants.

The comparison of the Self-concept score with those of film review sites (IMDb and Rotten Tomatoes) was made to validate the Self-concept as a method of artifact evaluation. However, Self-concept data can be interpreted in many ways. Furthermore, this makes it possible for it to be applied in various fields of knowledge such as design and film. This research interpreted such data to evaluate artifacts and understand the participants' film preferences. Unfortunately, only three films had a sufficient sample to be evaluated, and only 4 participants answered the questionnaire for more than one film. Even with a limited sample, it was possible to present Self-concept as a method capable of being applied in the film area.

Through such an experiment and such interpretations, the Self-concept can generate data about the user experience, characterize it and evaluate various artifacts. It can be applied in more than one stage of the design process, bringing several benefits to the area. Furthermore, especially when it comes to user experience, which lacks techniques and methods, mainly because there is still no consensus among scholars about what experience is and how it is possible to develop artifacts that provide a "good experience" to the user, not limited to a "good interface." Self-concept is a flexible method, capable of being applied to several areas, and it is not difficult to apply. Furthermore, the research question "The Self-concept, as an artifact evaluation method, is capable of evaluating films?" could be answered through the experiment proposed in this research. Self-concept is a possibility to evaluate films - considering subjective criteria - but more tests and applications are needed to prove its effectiveness. However, good results were obtained, which justifies the continuity of studies relating to this method and the experience of watching films.

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## APPENDIX A - VALIDATION QUESTIONNAIRE OF QUALIFIERS RAISED IN THE LITERATURE REVIEW

### Avaliação de filmes

Questionário online que será utilizado como parte de uma pesquisa de mestrado do Programa de Pós-Graduação em Design da Universidade Federal de Pernambuco. Questionário para entender os usuários de cinema da Grande Recife (Recife e Região Metropolitana). Este questionário é composto de duas seções, onde a primeira seção tem como intuito caracterizar o usuário e a segunda para entender as escolhas de filme do usuário. Agradeço desde já pela participação.

\*Obrigatório

Caracterização do usuário

١.	Faixa etária *
	Marcar apenas uma oval.
	menor de 18 anos
	18-25 anos 26-35 anos
	36-45 anos
	46-55 anos
	56-65 anos
	mais de 65 anos
2.	Gênero *
	Centero
	Marcar apenas uma oval.
	Feminino
	Masculino
	Prefiro não dizer
	Outro:

3.	Estado civil *
	Marcar apenas uma oval.
	Solteiro (a)
	Casado (a)
	Divorciado (a)
	Viúvo (a)
	União estável
4.	Ocupação *
5.	Educação *
	Marcar apenas uma oval.
	Ensino infantil
	Ensino fundamental
	Ensino médio
	Curso técnico
	Graduação
	Especialização
	Pós-graduação

Sua relação com cinema

6.	Com que frequência costuma ir ao cinema? *
	Marcar apenas uma oval.
	Quase todo dia
	Pelo menos duas vezes por semana
	Uma vez por semana
	Pelo menos duas vezes ao mês
	Uma vez ao mês
	Uma vez por ano
	Raramente
	Outro:
7.	Qual cinema costuma frequentar? *
٧.	·
	Marque todas que se aplicam.
	Moviemax Rosa e Silva
	Cinema São Luiz
	Cinema da fundação
	Multiplex Boa Vista
	UCI Kinoplex Shopping Plaza
	UCI Kinoplex Shopping Tacaruna
	UCI Shopping Recife
	Cinemark Riomar
	Moviemax Camará Shopping
	Cinépolis Guararapes
	Cinépolis Patteo
	Cinesystem Cinemas (Paulista North Way Shopping)
	Outro:

8.	Que tipo de filme você vai assistir no cinema? *
	Marque todas que se aplicam.
	Romance Ficção científica Fantasia Drama Comédia Suspense Terror Infantil Animação Aventura Ação Comédia dramática Cult
9.	Em geral, o que te faz ir ao cinema? *
	Marque todas que se aplicam.
	Momento do casal
	Programa em família
	Momento com os amigos (as)
	Momento de lazer
	Para assistir filmes que receberam indicações em grandes festivais
	Para assistir filmes de um diretor que eu gosto
	Para assistir filmes com um ator/atriz que admiro
	Outro:

10.	Em geral, como você escolhe qual filme assistir no cinema? *
	Marque todas que se aplicam.
	Indicação de parentes e amigos
	Filmes bem avaliados em sites/revistas/jornais
	Filmes de grande bilheteria
	O que tiver passando no horário
	O que estiver passando no cinema
	Qualquer um
	Não sou eu que escolho
	Outro:
	_
11.	Para você, o que o filme precisa ter para ser considerado "bom"? *
11.	Um bom roteiro, trilha sonora e efeitos especiais.
	om bom roteiro, trima sonora e ereitos especiais.

12.	Que sentimentos ne ocorrem, no cinema, durante um nime que voce gostou?
	Marque todas que se aplicam.
	Ansioso
	☐ Irritado
	Depressivo
	Excitado
	Alegre
	Curioso
	Reflexivo
	Leve
	Angustiado
	Nostálgico
	Medo
	Outro:
Ob	origada!
	9
13.	Caso possa e queira ajudar em etapas futuras desta pesquisa, por favor deixe seu e-mail aqui embaixo. A pesquisa em questão visa utilizar uma ferramenta de avaliação de artefatos, autoconceito, para avaliar filmes.

Este conteúdo não foi criado nem aprovado pelo Google.

Google Formulários

#### APPENDIX B - FIRST IDEAL SELF-CONCEPT QUESTIONNAIRE

Questionário 01

Avaliação de filme

Universidade Federal de Pernambuco

#### Questionário 01

#### Experiência Ideal

O presente questionário faz parte da pesquisa de mestrado sobre avaliação de filmes utilizando o autoconceito. Tal pesquisa visa utilizar a ferramenta de avaliação de artefatos, autoconceito, para avaliar filmes que estão passado no cinema. O questionário do autoconceito consiste em adjetivos na escala bipolar de diferencial semântico dispostos na escala Likert de 5 ou 7 pontos. São dois questionários iguais, mas que são aplicados em momentos distintos. O primeiro para medir a expectativa do usuário em relação à experiência com o artefato e o segundo para medir a experiência real. A nota gerada para os filmes será o comparativo de ambos os questionários.

Este é o questionário 01, onde o usuário irá marcar os sentimentos que espera ter durante a experiência de assistir o filme no cinema. Marcando na escala qual adjetivo mais se aproxima da sua expectativa ou mancando o ponto intermediário quando os adjetivos forem irrelevantes, para você, nessa experiência.

mancando o ponto intermediá	rio qua	ındo os a	djetivos f	orem irre	levante	es, para você, nessa experiência.
1) Nome:						
2) Filme escolhido:						
3) Cinema:						
Marque, na escala, quais adje experiência de assistir tal film			proximan	n aos ser	ntiment	os que espera ter durante a
Reflexivo	<b>©</b>	0	0	0	0	Despreocupado
Alegre	0	•	0	0	0	Triste
Empolgado	0	•	0	0	0	Desempolgado
Emocionado	0	•	0	0	0	Inalterado
Leve	0	0	•	0	0	Tenso
Encantado	0	•	0	0	0	Frustrado
Curioso	0	0	0	0	0	Incurioso
Excitado	0	0	0	0	0	Desanimado
Estigado	0	0	0	0	0	Morgado
Ansioso	0	0	0	0	0	Desinteressado
Arrepiado	0	0	0	0	0	Tranquilo
Surpreso	0	0	0	0	0	Indiferente
Sereno	0	0	0	0	0	Com Medo
Sossegado	0	0	0	0	0	Irritado
Eufórico	0	0	0	0	0	Depressivo
Agoniado	0	0	0	0	0	Calmo
Nostálgico	0	0	0	0	0	Dessaudoso
Despreocupado	0	0	0	0	0	Angustiado
Vidrado	0	0	0	0	0	Desligado
Chocado	0	0	0	0	0	Inabalado
Impactado	0	0	0	0	0	Imperturbado
Satisfeito	0	0	0	0	0	Decepcionado
Anestesiado	0	0	0	0	0	Entediado
Desconfiado	0	0	0	0	0	Confiante
Entretido	0	0	0	0	0	Alheio
Empático	0	0	0	0	0	Apático

Questionário 01

Mestrado em Design

Universidade Federal de Pernambuco

#### APPENDIX C - FIRST REAL SELF-CONCEPT QUESTIONNAIRE

Questionário 02

Avaliação de filme

Universidade Federal de Pernambuco

#### Questionário 02

#### Experiência Real

O presente questionário faz parte da pesquisa de mestrado sobre avaliação de filmes utilizando o autoconceito. Tal pesquisa visa utilizar a ferramenta de avaliação de artefatos, autoconceito, para avaliar filmes que estão passado no cinema. O questionário do autoconceito consiste em adjetivos na escala bipolar de diferencial semântico dispostos na escala Likert de 5 ou 7 pontos. São dois questionários iguais, mas que são aplicados em momentos distintos. O primeiro para medir a expectativa do usuário em relação à experiência com o artefato e o segundo para medir a experiência real. A nota gerada para os filmes será o comparativo de ambos os questionários.

Este é o questionário 02, onde o usuário irá marcar os sentimentos que teve durante a experiência de assistir o filme no cinema. Marcando na escala qual adjetivo mais se aproxima da sua experiência ou mancando o ponto intermediário quando os adjetivos forem irrelevantes, para você, nessa experiência.

1) Nome:						
2) Filme escolhido:						
3) Cinema:						
Marque, na escala, quais adje experiência de assistir tal filme			oroximar	n aos sen	timent	os que espera ter durante a
Reflexivo	0	0	0	0	0	Despreocupado
Alegre	0	•	0	0	0	Triste
Empolgado	0	•	0	0	0	Desempolgado
Emocionado	0	•	0	0	0	Inalterado
Leve	0	0	•	0	0	Tenso
Encantado	0	0	0	0	0	Frustrado
Curioso	0	0	0	0	0	Incurioso
Excitado	0	0	0	0	0	Desanimado
Estigado	0	0	0	0	0	Morgado
Ansioso	0	0	0	0	0	Desinteressado
Arrepiado	0	0	0	0	0	Tranquilo
Surpreso	0	0	0	0	0	Indiferente
Sereno	0	0	0	0	0	Com Medo
Sossegado	0	0	0	0	0	Irritado
Eufórico	0	0	0	0	0	Depressivo
Agoniado	0	0	0	0	0	Calmo
Nostálgico	0	0	0	0	0	Dessaudoso
Despreocupado	0	0	0	0	0	Angustiado
Vidrado	0	0	0	0	0	Desligado
Chocado	0	0	0	0	0	Inabalado
Impactado	0	0	0	0	0	Imperturbado
Satisfeito	0	0	0	0	0	Decepcionado
Anestesiado	0	0	0	0	0	Entediado
Desconfiado	0	0	0	0	0	Confiante
Entretido	0	0	0	0	0	Alheio
Empático	0	0	0	0	0	Apático

Questionário 02

Mestrado em Design

Universidade Federal de Pernambuco

## APPENDIX D - FINAL SELF-CONCEPT QUESTIONNAIRE WITHOUT FILM EVALUATION

# Utilizando o Autoconceito para a avaliação de filmes

Olá, me chamo Cecília Eloy e sou pesquisadora na área de experiência do usuário. Gostaria de pedir a sua participação na minha pesquisa de mestrado. Minha pesquisa visa avaliar filmes por meio de dois questionários, onde o primeiro deverá ser respondido antes de assistir ao filme e o segundo depois de ter assistido ao filme.

Com tais questionários, serei capaz de dar uma nota aos filmes. No primeiro questionário, você marcará a sua expectativa sobre o filme escolhido. Os sentimentos que espera ter ao assistir ao filme. E no segundo, marcará como foi a experiência de assistir ao filme. Os sentimentos que sentiu durante o filme.

Não existe resposta certa ou errada, então não se preocupe em ser avaliado. A primeira parte do questionário peço alguns dados pessoais, que serão apenas utilizados para a pesquisa sem nenhuma divulgação. E o seu nome será solicitado apenas como forma de identificar o primeiro e segundo questionário que você respondeu, então não precisa colocar o nome completo se não quiser.

É um questionário rápido, que deverá levar cerca de 3 a 5 minutos para ser preenchido. E a participação é totalmente voluntária.

Obrigada pela participação e ajuda na pesquisa.

\*Obrigatório

### TERMO DE CONSENTIMENTO LIVRE E ESCLARECIDO (PARA MAIORES DE 18 ANOS OU EMANCIPADOS)

Convidamos o (a) Sr. (a) para participar como voluntário (a) da pesquisa UTILIZANDO O AUTOCONCEITO PARA AVALIAR FILMES, que está sob a responsabilidade do (a) pesquisador (a) CECÍLIA ELOY NEVES, que reside no endereco.

RUA LUIZ RODOLFO DE ARAÚJO, 60/APT 501, BAIRRO AFLITOS – RECIFE/PE, contato 81 9 91417743 e endereço digital <a href="mailto:cecil.laeloyneves.agmail.com"><u>CECIL.IAELOYNEVES.agmail..com</u></a>. Está sob a orientação de FÁBIO FERREIRA DA COSTA CAMPO, Telefone: 81 9 81762626, e-mail <a href="mailto:feculosample.com"><u>FC2005@GMAIL.COM</u></a>. Todas as suas dúvidas podem ser esclarecidas com o responsável por esta

pesquisa. Apenas quando todos os esclarecimentos forem dados e você concorde com a realização do estudo, pedimos que

rubrique as folhas e assine ao final deste documento, que está em duas vias. Uma via lhe será entregue e a outra ficará com o

pesquisador responsável. O (a) senhor (a) estará livre para decidir participar ou recusar-se. Caso não aceite participar, não haverá nenhum problema, desistir é um direito seu, bem como será possível retirar o consentimento em qualquer fase da pesquisa, também sem nenhuma penalidade.

#### INFORMAÇÕES SOBRE A PESOUISA:

□ Descrição da pesquisa e esclarecimento da participação: A pesquisa aqui descrita visa gerar evidências do uso da

ferramenta "autoconceito" para avaliação de artefatos. Dessa forma, o "autoconceito" será utilizado para avaliar filmes. O

"autoconceito" é conceituado como "a totalidade dos pensamentos e sentimentos que um indivíduo tem em relação a si próprio"

(ROSENBERG, 1979, p. 07). Na década de 60 ele começa a ser aplicado à área de marketing, como ferramenta para entender o

comportamento de compra do consumidor. Na área de comportamento do consumidor, ele é utilizado para caracterizar o

consumidor e em design vem sendo aplicado para avaliar artefatos. Estudos recentes mostram que o "autoconceito" vem provando ser uma ferramenta capaz de prever o sucesso de mercado de diversos artefatos, por isso, ver-se a necessidade de gerar mais evidências sobre o uso do "autoconceito" como ferramenta de avaliação de artefatos. O artefato a ser avaliado são filmes e tal avaliação é feita por meio de dois questionários, iguais, mas aplicados em momentos distintos. O primeiro questionário visa captar o "autoconceito" ideal do usuário em relação ao artefato, ou seja, quê sentimentos o usuário espera ter no filme. E o segundo questionário visa captar o "autoconceito" real do usuário em relação ao artefato, ou seja, quê sentimentos o usuário teve no filme. Ambos os questionários serão comparados e a partir da diferença euclidiana entre eles, uma nota para o artefato será gerado. E tal nota, será comparada com os sites de avaliação de filmes, para comprovar, ou não, a capacidade do "autoconceito" de avaliar filmes. Como voluntário dessa pesquisa, será solicitado que comece escolhendo um filme para assistir, sendo a primeira vez à assistir ao filme. Antes de começar a assistir, o voluntário deverá responder ao primeiro questionário, este questionário visa captar o "autoconceito" ideal (ideal self) do voluntário em relação ao filme, onde ele marcará que sentimentos espera ter durante o filme. O segundo questionário deverá ser respondido pelo voluntário quando ele terminar de assistir ao filme, neste questionário ele irá marcar que sentimentos lhe ocorreram durante o filme, captando, assim, o "autoconceito" real (real self). Muito importante que ambos os questionários sejam respondidos, para que seja possível gerar a nota do filme, por meio da comparação entre ambos os questionários. Desde já agradeço a participação de todos.

□ RISCOS: Os riscos apresentados na pesquisa em questão seria gerar frustração ao usuário, pelo fato de não ser apenas um

questionário a ser aplicado, mas dois e em momentos distintos. A necessidade de responder ao segundo questionário depois de assistir ao filme pode gerar certa frustração, já que o usuário pode estar cansado, com fome e querendo ir embora. Mas para

reduzir isso, o segundo questionário poderá ser respondido em casa, pelo celular e computador. Ambos os questionários serão online.

□ BENEFÍCIOS diretos/indiretos para os voluntários: Contribuir para pesquisas na área de comportamento do usuário

design e cinema. Além de poder avaliar filmes que assistiu e tomar ciência de como avaliar um filme,

considerando critérios subjetivos.

2.

preferir

Esclarecemos que os participantes dessa pesquisa têm plena liberdade de se recusar a participar do estudo e que esta decisão não acarretará penalização por parte dos pesquisadores. Todas as informações desta pesquisa serão confidenciais e serão divulgadas apenas em eventos ou publicações científicas, não havendo identificação dos voluntários, a não ser entre os responsáveis pelo estudo, sendo assegurado o sigilo sobre a sua participação. Os dados coletados nesta pesquisa, por meio de questionário, ficarão armazenados no computador pessoal da pesquisadora, sob a responsabilidade da pesquisadora, CECÍLIA ELOY NEVES, no endereço, RUA LUIZ RODOLFO DE ARAÚJO, 60/APT 501, AFLITOS, RECIFE-PE, pelo período de mínimo 5 anos após o término da pesquisa. Nada lhe será pago e nem será cobrado para participar desta pesquisa, pois a aceitação é voluntária, mas fica também garantida a indenização em casos de danos, comprovadamente decorrentes da participação na pesquisa, conforme decisão judicial ou extrajudicial. Se houver necessidade, as despesas para a sua participação serão assumidas pelos pesquisadores (ressarcimento de transporte e alimentação).

□ Em caso de dúvidas relacionadas aos aspectos éticos deste estudo, o (a) senhor (a) poderá consultar o Comitê de Ética em

Pesquisa Envolvendo Seres Humanos da UFPE no endereço: (Avenida da Engenharia s/n – 1º Andar, sala 4 - Cidade

Universitária, Recife-PE, CEP: 50740-600, Tel.: (81) 2126.8588 - e-mail: cepccs@ufpe.br).

1. Eu, após a leitura (ou a escuta da leitura) deste documento e de ter tido a oportunidade de conversar e ter esclarecido as minhas dúvidas com o pesquisador responsável, concordo em participar do estudo UTILIZANDO O AUTOCONCEITO PARA A AVALIAÇÃO DE FILMES como voluntário (a). Fui devidamente informado (a) e esclarecido (a) pelo(a) pesquisador (a) sobre a pesquisa, os procedimentos nela envolvidos, assim como os possíveis riscos e benefícios decorrentes de minha participação. Foi-me garantido que posso retirar o meu consentimento a qualquer momento, sem que isto leve a qualquer penalidade. \*

Marcar ap	penas uma oval.
Ace	ito participar
◯ Não	aceito Pular para a seção 4 (Obrigada pela participação!)
	Tais dados são coletados apenas para poder identificar o questionário 1 e 2 preenchidos
Dados pessoais	pelo mesmo usuários. Para que a diferença euclidiana entre ambos os questionários seja devidamente gerada, dando, assim, uma nota ao artefato.
Nome *	
	é apenas para identificação dos questionários então pode colocar apenas o primeiro nome se

3.	Gênero ao qual se identifica *
	Marcar apenas uma oval.
	Feminino
	Masculino
	Prefiro não comentar
	Outro:
4.	Faixa etária *
	Marcar apenas uma oval.
	Menor de 18 anos Pular para a seção 4 (Obrigada pela participação!)
	18-25 anos
	26-35 anos
	36-45 anos
	46-55 anos
	56-65 anos
	Mais de 65 anos
5.	Filme escolhido *
6.	Em quê provedor/canal assistiu ao filme? * Netflix, Amazon Prime, TeleCine

7.	É a primeira	vez que	e assis	te ao f	ilme? *						
	Marcar apena	as uma	oval.								
	Sim Não	Pular p	ara a s	eção 4 (	Obrigad	la pela p	articipa	ıção!)			
Pu	lar para a pergui	nta 8									
G 1	)uestionário	dura que	ante o fil espera s	me. Mar	cando , n rante o fi	a escala,	qual do	s dois ac	sentimentos e ljetivos mais s mediário quand	e aproxima do	
8.	Marque, na e expectativa e sentimento o quando nenh Marcar apenas	em rela da esqu num do	eção ao Jerda e S dois	o filme e 7 mai	que irá s do da	assist direita	ir. Send a, e o p	do o nú onto n	imero 1 mai nédio (4) se	is perto do ria neutro,	
		1	2	3	4	5	6	7			
	Emocionado								Assustado		
9.	*										
	Marcar apenas	uma o	/al.								
		1	2	3	4	5	6	7			
	Empolgado								Angustiado		

10.	*
	Marcar apenas uma oval.
	1 2 3 4 5 6 7
	Excitado
11.	*
	Marcar apenas uma oval.
	1 2 3 4 5 6 7
	Surpreso Decepcionado
12.	*
	Marcar apenas uma oval.
	1 2 3 4 5 6 7
	Vislumbrado
3.	*
٥.	Marcar apenas uma oval.
	1 2 3 4 5 6 7
	Reflexivo Entediado

	1	2	3	4	5	6	7	
Leve (								Tenso
*								
Marcar a	apenas (	ıma ova	1.					
	1	2	3	4	5	6	7	
Sereno								Ansios
	1	2	3	4	5	6	7	
Alegre								Depress
*								
Marcar a	apenas (	ıma ova	1.					
	1	2	3	4	5	6	7	
								Indifer
Curioso								

#### APPENDIX E - FINAL SELF-CONCEPT QUESTIONNAIRE WITH FILM EVALUATION

# Utilizando o Autoconceito para a avaliação de filmes

Olá, me chamo Cecília Eloy e sou pesquisadora na área de experiência do usuário. Gostaria de pedir a sua participação na minha pesquisa de mestrado. Minha pesquisa visa avaliar filmes por meio de dois questionários, onde o primeiro deverá ser respondido antes de assistir ao filme e o segundo depois de ter assistido ao filme.

Com tais questionários, serei capaz de dar uma nota aos filmes. No primeiro questionário, você marcará a sua expectativa sobre o filme escolhido. Os sentimentos que espera ter ao assistir ao filme. E no segundo, marcará como foi a experiência de assistir ao filme. Os sentimentos que sentiu durante o filme.

Não existe resposta certa ou errada, então não se preocupe em ser avaliado. A primeira parte do questionário peço alguns dados pessoais, que serão apenas utilizados para a pesquisa sem nenhuma divulgação. E o seu nome será solicitado apenas como forma de identificar o primeiro e segundo questionário que você respondeu, então não precisa colocar o nome completo se não quiser.

É um questionário rápido, que deverá levar cerca de 3 a 5 minutos para ser preenchido. E a participação é totalmente voluntária.

Obrigada pela participação e ajuda na pesquisa.

#### \*Obrigatório

1.	Você resp	ondeu ao primeiro questionário antes de assistir ao filme? *
	Marcar ap	enas uma oval.
	Sim Não	Pular para a pergunta 22
_	ados essoais	Tais dados são coletados apenas para poder identificar o questionário 1 e 2 preenchidos pelo mesmo usuários. Para que a diferença euclidiana entre ambos os questionários seja devidamente gerada, dando, assim, uma nota ao artefato.

Gêr	nero ao qual se identifica *
Mar	car apenas uma oval.
	Feminino
	Masculino
	Prefiro não comentar
	Outro:
Faix	a etária *
Mar	car apenas uma oval.
	Menor de 18 anos Pular para a pergunta 22
	18-25 anos
	26-35 anos
	36-45 anos
	46-55 anos
	56-65 anos
	Mais de 65 anos
Film	e escolhido *

7.	Gostou do fil	me? *								
	Marcar apena	s uma	oval.							
	Sim									
	Não									
	Ainda nã	io term	inei	Pular p	ara a pe	ergunta	22			
Pu	lar para a pergur	nta 8								
Q 2	uestionário	film exp	ne. Marca	ndo, na durante	escala, q	ual dos d	dois adjet	tivos ma	sentimentos t is se aproxima rio quando ner	
8.	Marque, na e experiência desquerda e 7 dos dois se a Marcar apenas	lurant mais plica.	e o film do da d Durant	ne. Sen direita,	do o ni e o po	úmero nto mé	1 mais dio (4)	perto ( seria r	do sentime neutro, qua	nto da
		1	2	3	4	5	6	7		
	Emocionado								Assustado	
9.	*									
	Marcar apenas	uma o	val.							
		1	2	3	4	5	6	7		
	Empolgado (								Angustiado	

	1	2	3	4	5	6	7	
Excitado								Frustrad
*								
Marcar ape	enas um	na oval.						
	1	2	3	4	5	6	7	
Surpreso								Decepci
			2 3	3 4	1 !	5	6	7
* Marcar ape Vislumbra			2 3	3 4	1 !	5	6	7
Marcar ape			2 3	3 4	1 !	5	6	
Marcar ape			2 3	3 4	1 :	5	6	
Marcar ape Vislumbra *	ado C	1 2	2 3	3 4	1 !	5	6	
Marcar ape	ado C	1 2	2 3	3 4	5	6	7	
Marcar ape Vislumbra *	ado Canado Canad	na oval.						

14.		
	Marcar apenas uma oval.	
	1 2 3 4 5 6 7	
	Leve	
15.		
15.		
	Marcar apenas uma oval.	
	1 2 3 4 5 6 7	
	Sereno Ansioso	
16.		
	Marcar apenas uma oval.	
	1 2 3 4 5 6 7	
	Alegre Depressivo	
17.		
	Marcar apenas uma oval.	
	1 2 3 4 5 6 7	
	Curioso           Indiferente	
		~ -
Ava	não é obrigatória, então, sinta-se a vontade de finalizar esse questionário. Já agradeç	
	stido	

caso tenha detestado o filme e 7 para caso tenha adorado o filme. E o ponto méd (4) é o ponto neutro, caso não tenha gostado nem desgostado do filme.										
Marcar apenas uma oval.										
	1	2	3	4	5	6	7			
Detestei o filme								Adore	i o filme	
Marque na esc			11-							
Sendo 1 para caso tenha detestado e 7 para caso tenha adorado. E o ponto médi (4) é o ponto neutro, caso não tenha gostado nem desgostado do roteiro do film										
Marcar apenas u				•						
					_	,	-			
	1	2	3	4	5	6	7			_
Detestei o roteir		2	3	4	5	6	7	) Adoi	ei o rotei	ro
Detestei o roteir  Marque na esc principal do fili E o ponto méd roteiro do filme	ala Liker me. Senio (4) é o	rt de 7 do 1 pa	ponto ara cas	s o qua	anto vo	ocê ach	nou do	persoi a caso	nagem tenha ad	dora
Marque na esc principal do fili E o ponto méd	ala Likel me. Sen io (4) é o	rt de 7 do 1 pa	ponto ara cas	s o qua	anto vo	ocê ach	nou do	persoi a caso	nagem tenha ad	dora
Marque na esc principal do filr E o ponto méd roteiro do filme	ala Likel me. Sen io (4) é o	rt de 7 do 1 pa	ponto ara cas	s o qua	anto vo	ocê ach	nou do	persoi a caso	nagem tenha ad	dora

Obrigada pela participação!	Sua participação nessa pesquisa é de grande ajuda para a minha pesquisa!  Se puder, sempre que for assistir a um filme NOVO, pode continuar respondendo a este questionário. Será de grande ajuda! Lembrando que precisa ser a primeira vez ao assistir ao filme, você tem que ser maior de 18 anos e o primeiro questionário deve ser respondido antes do segundo!  O primeiro questionário deve ser respondido antes de assistir ao filme e o segundo depois de ter terminado de assistir ao filme escolhido.  Obrigada mais uma vez! Bons filmes!
	inuar conversando? Caso tenha interesse em participar de outras a pesquisa, basta deixar seu e-mail aqui.

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Sua participação nessa pesquisa é de grande ajuda para a minha pesquisa!

Agora pode assistir ao seu filme e quando terminar é só responder ao segundo questionário. Lembrando que precisa ser a primeira vez ao assistir ao filme, você tem que ser maior de 18 anos e o primeiro questionário deve ser respondido antes do Obrigada pela

O primeiro questionário deve ser respondido antes de assistir ao filme e o segundo participação! depois de ter terminado de assistir ao filme escolhido.

> Obrigada mais uma vez! Bons filmes!

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