



Faculty of Applied & Creative Arts

**Effects of Creative and Technical Skills on Employability Criteria in the
Animation Industry Malaysia**

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Effects of Creative and Technical Skills on Employability Criteria in the Animation Industry Malaysia

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DECLARATION

I declare that the work in this thesis was carried out in accordance with the regulations of Universiti Malaysia Sarawak. Except where due acknowledgements have been made, the work is that of the author alone. The thesis has not been accepted for any degree and is not concurrently submitted in candidature of any other degree.

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ABSTRACT

The animation industry in Malaysia is experiencing a significant growth, although research on several employability issues affecting it is still scarce, despite the growing importance of creative industries worldwide. The aim of this thesis was to investigate students' and employers' perceptions in the Malaysian animation industry regarding employability skills and other labor-related issues, including internships and portfolio building, while taking considerations on the impact of the covid-19 pandemic. This study involved eight (8) senior students from the animation program in the faculty of applied and creative arts in the University Malaysia Sarawak (UNIMAS) (Malaysia) who completed their internship in their final year of study, and nine (9) employees working in the animation industry, who were selected based on the criterion of having the ability to make decisions on hiring new employees. A qualitative research methodology was adopted involving semi-structured in-depth interviews with all study participants, which data were processed via a thematic analysis. In the same time, quantitative research with the use of a close-ended questionnaire (survey) was conducted with 223 employees so as to assess the covid-19 impact. Results indicated that employability skills in the animation industry cover a wide range of creative, technical, and soft skills sets, which all converge in a manner that create a complex, dynamic and integrative professional profile. In addition, this study found that internship programs provide for advanced opportunities of acquiring real-world working experience, as well as that portfolio building is crucial for enhancing employability chances. Lastly, this study findings support the idea that the new working modes introduced due to the pandemic may benefit employees in the creative industries in terms of employability skills development. Overall, this study argues that job candidates in the animation industry must be highly skilled, creative and technologically aware in order to pursue a career. The results do suggest that both internships and universities' programs

should be sufficiently aligned to industry needs and employers' expectations.

Keywords: Animation industry, employability skills, internships, portfolio building, Covid-19.

***Kesan Kemahiran Kreatif dan Teknikal terhadap kriteria Kebolehpasaran Kerja dalam
Industri Animasi di Malaysia***

ABSTRAK

Industri animasi di Malaysia mengalami pertumbuhan yang ketara, walaupun penyelidikan mengenai beberapa isu kebolehpasaran kebolehpasaran dalam industri kreatif di seluruh dunia masih terhad, Tujuan tesis ini adalah untuk mengetahui persepsi pelajar dan majikan dalam industri animasi di Malaysia mengenai kreativiti dan kemahiran teknikal untuk kriteria kebolehpasaran dan isu berkaitan buruh lain, termasuk latihan amali dan portfolio bangunan, sambil mengambil pertimbangan tentang kesan pandemik covid-19. Kajian ini melibatkan lapan (8) pelajar senior dari program animasi di Fakulti Seni Gunaan dan Kreatif di Universiti Malaysia Sarawak (UNIMAS) Malaysia yang menamatkan latihan amali mereka pada tahun akhir pengajian mereka, dan sembilan (9) responden yang bekerja di dalam industri animasi, yang dipilih berdasarkan kriteria iaitu mempunyai keupayaan untuk membuat keputusan mengenai pengambilan pekerja baharu. Satu penyelidikan kualitatif telah diterima pakai melibatkan temu bual separa berstruktur dengan semua kajian peserta, yang mana data telah diproses melalui analisis tematik. Dalam masa yang sama, penyelidikan kuantitatif dengan menggunakan soal selidik tertutup (tinjauan) telah dijalankan terhadap 223 orang pekerja untuk menilai kesan covid-19 terhadap industri animasi. Keputusan menunjukkan bahawa kemahiran kebolehpasaran dalam industri animasi meliputi pelbagai jenis kreativiti, set teknikal dan kemahiran insaniah, dimana kesemuanya bercantum menjadi satu entiti, profil profesional yang dinamik dan integratif. Selain itu, kajian ini mendapati bahawa program latihan magang menyediakan peluang lanjutan untuk memperoleh dunia sebenar pengalaman bekerja, serta pembinaan portfolio adalah penting untuk meningkatkan peluang kebolehpasaran. Akhir sekali,

dapatan kajian ini menyokong idea bahawa kerja baru mod yang diperkenalkan akibat pandemic mungkin memberi manfaat kepada pekerja dalam industry kreatif dari segi pembangunan kemahiran kebolehpasaran. Secara keseluruhan, kajian ini berpendapat bahawa pekerjaan calon dalam industry animasi mestilah dengan berkemahiran tinggi, kreatif dan sedar teknologi untuk meneruskan kerjaya. Keputusan menunjukkan bahawa kedua-duanya latihan amali dan program universiti harus cukup sejajar dengan keperluan industry dan jangkaan majikan.

Kata kunci: *Industri animasi, kemahiran kebolehpasaran, latihan, pembinaan portfolio, Covid-19*

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CHAPTER 1

INTRODUCTION

1.1 Study Background

Creative industries, as crossroads of arts, culture, entrepreneurial thinking and high-end technology, are now of growing importance for the economy of many countries around the world (Abbasi et al., 2017). They involve activities that strongly rely on creativity, a wide range of skills, in-depth knowledge of the artistic domain and talent, producing intellectual property and creative content of significant economic and cultural importance (Cunningham, 2009). Driven by increasing demand for digital content, entertainment, gaming and visual effects, as well as the expanding availability of the Internet and streaming services, the animation industry has developed rapidly during the last years, displaying great market growth (Yoon, 2017). Its total value in 2018 and 2019 reached US\$259 and US\$264 billion, respectively, displaying an annual growth rate of 2-3% (Digital Vector, 2020). Although Los Angeles, Tokyo and Paris are among the top established animation hubs worldwide (Westcott, 2011), new “worlds of production” are emerging (Yoon & Malecki, 2010), leading to a more globalized production network (Yoon, 2017).

Among these, Malaysia is emerging as an animation production powerhouse, pushed by governmental support for the use of digital technology and the development of local animation content (Juhan & Ismail, 2016). Nowadays, the Malaysian animation industry displays substantial growth, with more than 372 studios being involved in various stages of production (Chong, 2018). According to Malaysia Digital Economy Corporation (M₁DEC), it's worth reached in 2016 US \$187.7 million, employing over 3,000

individuals working at over 100 homegrown studios, with the latter producing more than 20 original IPs with an export value of US\$32.3 million (Aiza, 2019). Being home to a rapidly growing collection of animation studios, Malaysia strives to reach global levels in creating original animated content (Mak, 2019).

Labor within the creative industries, including the animation one, has been gaining attention due the specific particularities characterizing it (De Peuter, 2011), given that the production of creative products is embedded with hard work, deep knowledge and core aesthetic values (Legault & Weststrar, 2015). Individuals working in the creative industries should be talented, highly educated, while possessing a wide range of capabilities and generic skills (Carey et al., 2019). In addition, creating work often depends on freelancing, providing high levels of flexibility and autonomy (Bain & McLean, 2013).

Given the above, employability skills in the creative industries are of particular interest for all stakeholders involved, including employers, employees and job candidates (Lingo & Tepper, 2013). As such industries require a combination of highly specialized knowledge and generic skills, the primary focus is to be placed on the creative capacities of individuals who are able to work in this sector (Holden, 2007). In addition, employees in animation are required to have high levels of technical skills regarding the application of computer software, taking into consideration the rapid growth of animation- related technology, such as 3D software (Furniss, 2007).

As such, employees in creative industries should be technologically aware, talent driven, highly skilled and competitive, creative, while having a thorough formal and informal knowledge of their specific domain (Groenendijk et al., 2013; Carey et al., 2019).

The importance of other soft skills, though, should not be under- recognized. Such skills, being related with the contemporary modes of working, include interpersonal competencies, problem-solving, flexibility, change adaptation and personal resilience, all being in great demand by employers in the creative economy (Deming, 2017; Munro, 2017). While technical and creative skills seem to converge, increasing emphasis is placed on a combination of creativity, technical knowledge, entrepreneurial thinking, team-working and project management skills (Neff et al., 2005; Cunningham, 2009).

Furthermore, job candidates in the creative industries should be able to prove their skills, knowledge and competencies through various formal means, including their portfolio. Indeed, it has been suggested that portfolio building is a crucial component of pursuing a career in the creative sector, while in conjunction with internships, lead to advanced opportunities for better paid jobs (Scottish Funding Council 2019; Carey et al., 2019). In fact, internship programs in the creative industries play a crucial role for enhancing work readiness and employability skills (Shade & Jacobson, 2015). Although usually unpaid (Siebert & Wilson, 2013), internships constitute an avenue leading to improved opportunities for paid job positions, as they are considered as effective means of acquiring the required working competences, and support career progression by combining work experience and on-the-field learning (Daniel & Daniel, 2015).

1.2 Problem Statement

Although the animation industry represents a fast-growing industry both worldwide and in Malaysia, considerable lack of research is identified regarding its labor force and other employability-related variables, including skills and competencies that Support career development and professional progression pathways. Although working skills in the creative industries generally has been a topic of significant research interest, to the best

of our knowledge, no study has examined the particular employability skills required in the animation sector, with the empirical knowledge on this matter still being scarce and under-investigated. As such, exploring key informants views of the animation industry on employability skills is a topic of high research interest, providing a valuable insight on labor practices employed in the creative industries. Accordingly, this study investigates students and employers' perceptions regarding the employability skills in the animation Industry as well as their views their internship experiences and portfolio building, so as to provide an invaluable insight on related labor market issues. In addition, this thesis provides a preliminary assessment of employability skills development during the covid-19 pandemic.

1.3 Aims and Objectives

- i. As previously mentioned, available empirical knowledge on skills of creative workers and especially those working in the animation industry is scarce, while other elaborated topics being under-investigated. Accordingly, this study aims to fill this research gap, by investigating students and employersviews on employability skills in the animation industry, along with other employability- related issues, including the role of portfolio advantages and how can it effect the employer's decision about employment also the internships effect on the employees and students by experiencing the working environment.
- i. To identify what are the most important technical skills in the animation industry.
- ii. To identify what are the most important creative skills in the animation industry
- iii. To investigate what are the employers, employees, and graduate student's perceptions to be employed in the animation industry.

- iv. To identify what is the role of portfolio building and internship impact from participants perception to be employed in the animation industry.
- v. To investigate how the Covid-19 pandemic affected employability skills development in the animation industry.
- vi. To develop a conceptual framework regarding employability required in the animation industry.

The respective research questions include the following:

- i. Which are the most important employability skills in the animation industry, according to students and employer's views?
- ii. Which are the most important technical, creative and soft-generic (or social) skills in order to be employed in the animation industry?
- iii. How portfolio building is related to advanced employability opportunities in the animation industry?
- iv. How internships can provide for the acquisition and development of the required employability skills?
- v. What challenges students and employers in the animation industry face regarding the aforementioned issues?
- vi. How student's and employees views are differentiated in terms of their views as regards employability skills, portfolio building and internships?
- vii. How has the covid-19 pandemic affected employability skills development in the animation industry, along with other employability issues?

1.4 Methodology

This study adopts a qualitative research methodology, which is very common in social sciences, aiming to produce information-rich data based on an interpretive and naturalistic approach of the real world, by taking into account individuals' experiences (Denzin & Lincoln, 2005). In qualitative research, the researcher seeks to carry out an in-depth, detailed study and understanding of the individual aspects or dimensions of the phenomenon under study, while seeking to formulate a genuine, authentic, dynamic and holistic approach (Berg, 2001). What is more, this study adopts Mason's (2017) methodological design of qualitative research, which is illustrated in the following Figure 1.1.

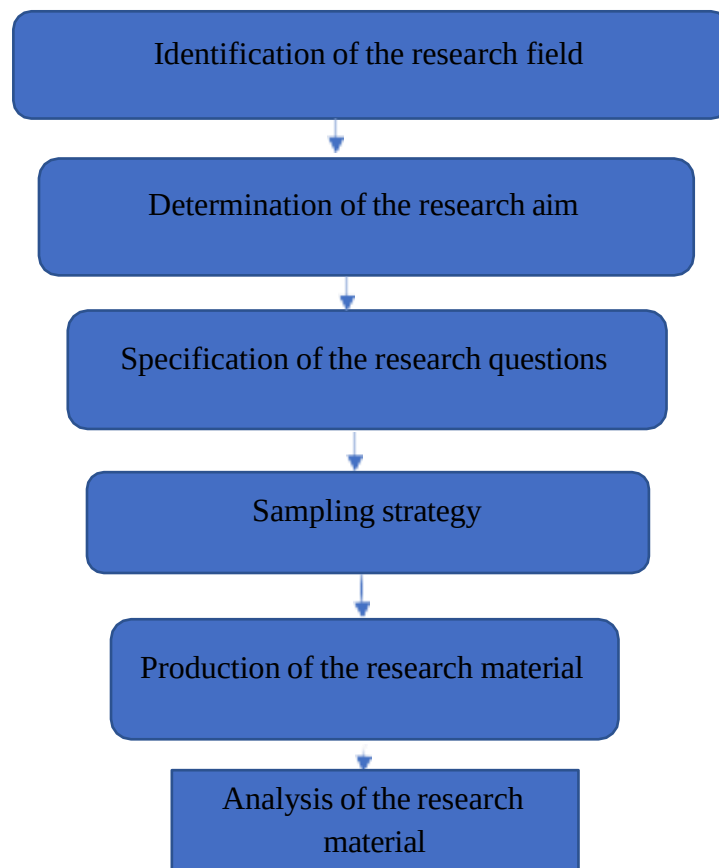


Figure 1.1: Research Design Source: Mason (2017)

Having identified the labor market in the creative (animation) industry as the research field of this study, the research aim refers to the examination of the employability skills required in this industry based on major stakeholder's views (students and employers). The respective research questions, referring to the third step of this research design paradigm, are specified according to the research aim and include employability skills and their acquisition or verification via internships and portfolio building. As for the sampling strategy, this combined a sampling of homogeneous.

Individuals and snowball sampling. A homogeneous sampling method means that individuals (students and employees) who participated in this research were selected due to having common characteristics in order to provide in-depth understanding of the phenomenon under investigation "for example." employability in the animation industry. In addition, this sampling method was combined with a snowball sampling strategy, especially as regards employees of the animation industry, so as to reach more individuals working in the industry.

Overall, this study included: (1) eight (8) senior students from the animation program in the faculty of applied and creative arts in the Universiti Malaysia Sarawak (UNIMAS) (Malaysia) who completed their internship in their final year of study, and who held the minimum amount of industry experience and about to complete their Bachelor degree, and (2) nine (9) employees working in the animation industry, who were selected based on the criterion of having the ability to make decisions on hiring new employees based on their experience and working profile ("for example." working as an Art Director or as a Senior Animator), excluding the HR department.

Accordingly, the research material was produced via the conduction of in- depth qualitative semi-structured interviews with students and employees in the animation

industry. This strategy of data production was selected among others (“for example.” focus groups, observation, ethnography) because it allows participants to express in their own words and elaborate on their personal views and experiences in their academic, professional and working context (Barriball & While, 1994). The use of the qualitative in-depth interview is based on an ontological approach to what constitutes the social world, which perceives people's experiences, views, interpretations and interactions as important dimensions of the social reality (Baronov, 2004). This study employed a semi-structured approach for performing the in-depth interviews with the participants. The semi-structured in-depth interview consists of a set of somewhat predetermined questions and is often used by scholars in order to have a guide to the topics they consider important to cover in the interview (Mason, 2017).

All interviews were recorded and transcribed, and data were analyzed via a thematic analysis, a method allowing for the categorization of repetitive patterns of meaning across the data set (Clarke et al., 2015), while providing a considerable level of freedom and flexibility (Roulston, 2001). As such, the thematic content analysis was the type of method adopted for analyzing the research data, the last step of Mason's (2017) methodological design depicted in Figure 1.1. Thematic analysis is an easy-to-use method that is widely used in qualitative research. It is considered particularly important for researchers, as it provides key skills that are also useful for conducting more specialized qualitative analysis approaches (Clarke et al., 2015). In particular, it is a method of identifying, describing, reporting and “thematizing” repetitive semantic patterns, “for example.” “topics” that arise from research data, and is a key tool for all researchers involved in qualitative research (Braun and Clark, 2006). Thematic analysis in this research was conducted with the use of the program NVivo, a product of Qualitative Research Solutions (QSR) International. Following Braun and Clarke (2006) methodological process of thematic analysis, data

analysis in this study was conducted according to the research questions, leading to two broader categories of analysis: (1) student's and (2) employee's perceptions. Lastly, it should be noted that compliance with qualitative research ethics and principles was accomplished by safeguarding full participant's consent, by ensuring anonymity and confidentiality, and by informing participants about the research aims and objectives.

What is more, this qualitative study adopted a stakeholder analysis perspective, which is used to explore experiences, views and perceptions of individuals who are considered as having a relatively significant influence on potential outcomes. Stakeholders' analysis originated from organizational and economic sciences, so as to identify and access key group of people having an important influence on the success of a project. As an emergent methodology used both in qualitative and quantitative research, stakeholders' analysis proposes that certain individuals or groups have a power to influence scientific results and require special attention (Mitchell et al., 1997). As such, adopting a stakeholder's perspective in qualitative research required the examination of certain groups positions, which in turn interests the outcomes of a given research (Hennink et al., 2020). It should also be noted that this type of analysis can be used as a tool for engaging various groups to build respective relationships with each other. In this study, the two key stakeholders identified include students and employers (employees acting as employers due to their power on hiring new joiners), given that employability criteria are an issue of concern of the animation industry's labor market, in which both those two groups shape, with taking into account the significant evolving if both of the stakeholder's collaborated and reflected on the creative industry.

Lastly, it should be noted that for the last research question (the effect of covid-19 pandemic on employability skills development in the animation industry), qualitative research with the use of a questionnaire (survey) was conducted. The survey involved 223

employees in the animation industry (N=223) and was performed with the use of a close-ended questionnaire involving 18 questions (8 demographic and 10 regarding the impact of the pandemic), which was distributed and completed online. Data derived by the questionnaire were then statistically processed with the statistical package SPSS 20.0.

1.5 Thesis Outline

This thesis is structured into two parts, the first one containing three chapters (theoretical part) and the second one consisting of three chapters as well (empirical part). In particular, the following Chapter 2 reviews the issue of creative industries, paying special attention to the case of the animation industry, by presenting the respective conceptual framework, examining the characteristics of the creative worker, investigating labor issues in the creative industries, and reviewing the animation industry both internationally and in Malaysia, while taking into account the impact of the Covid-19 pandemic. Chapter 3 provides a thorough theoretical analysis of employability skills, by taking into account its conceptual framework, the respective types, employability skills acquisition, the gap of skills based on the labor market requirements, and available empirical evidence of such skills in Malaysia. The theoretical part is completed with Chapter 4, which reviews theoretical and empirical evidence on employability skills in the animation industry. This chapter discusses the issue of employability skills in the creative industry (types of skills, evidence from national and international reports) and in the animation industry as well (skills and venues for acquiring them), making also references to the impact of the Covid-19 pandemic.

The second part of this thesis corresponds to the empirical part, consisting of three chapters. In particular, Chapter 5 presents the research methodology, including the research aim and the research questions, the research design, the research tool, the

sampling strategy and the research sample (students and employees), the data collection procedure, and the data analysis methods, along with the quantitative research methodology. Chapter 6 presents the qualitative empirical findings based on students and employee's perceptions, according to the thematic analysis employed, including the respective thematic categories, as well quantitative findings of the survey. As regards students perceptions, these thematic categories include the following: views on employability skills (technical skills, creative skills, soft-generic skills), and views on employability skills acquisition (portfolio building, internships), while as regards employer's perceptions, the respective thematic categories include the following: views on employability skills, views on portfolio importance, views on employability challenges faced and goals pursued, and views on internship importance. Lastly, Chapter 7 presents the discussion of empirical findings according to the available theoretical and empirical evidence presented in the theoretical part of this thesis, while concluding on respective employability issues in the animation industry. This chapter also reviews the research limitations and propositions for future research.

CHAPTER 2

LITRETURE REVIEW CREATIVE INDUSTRIES:

THE CASE OF THEANIMATION INDUSTRY

2.1 Conceptual Framework

Over the last 20 years, a growing body of research has placed great emphasis on the concept of the creative economy, referring to creative assets and work that generates socioeconomic growth and sustainable development in post-industrial Economies. According to Hearn and Bridgstock (2010), the creative economy Encompasses all creative work leading to the creation of cultural value and the promotion of innovation into national and international economic systems, taking into account the trend the several industrie's culturalization. A new class of scholarship, the creative economy theory, suggests that innovation is driven by cultural knowledge, skills and production, coupled with digital transformation and creativity, while brining wide- range benefits to all industries, beyond the creative (Hearn et al., 2014) according to creative economy theorists, this rising type of economic activity combines the creation of innovative content and other creative or ICT skills, contributing to sustainable and long lasting economic growth. Thus, it is no surprise that the demand for creative workers is increasing in a fast pace, while there is a consensus that the creative economy is of vital importance for trade, knowledge dissemination, wealth creation and jobs generation.

Besides respective scholarship, the importance of the creative economy has been highlighted by several international organizations and in particular by UNCTAD, according to which the creative economy (UNCTAD, 2008: p.15):

- (a) Fosters income generation, job creation and exports earnings while promoting social inclusion, cultural diversity and human development,
- (b) Embraces economic, cultural and social aspects interacting with technology, intellectual property and other tourism objectives,
- (c) Is a set of knowledge-based economic activities with a developmental dimension and crosscutting linkages at macro and micro levels to the overall economy?
- (d) Is a feasible development option calling for innovative multidisciplinary policy responses and intermenstrual actions, and (e) at the heart of the creative economy are the creative industries (UNCTAD, 2008: p.15).

The above definition recognizes creative industries as the core aspect of the rising creative economy, although the latter term has struggled with some conceptual challenges driven by multiple definitions and theoretical frameworks that have been used in order to provide a sound basis for its exploration. As Higgs and Cunningham (2008) explain, it is indeed quite challenging to provide a uniform explanation about that really constitutes creative activity, thus, leading to several alternative definitions regarding creative industries. In either case, this term was originally proposed by Horkheimer and Adorno (2009), who argued that creative or cultural industries are those industries that provide entertainment activities through industrial production processes, such as film creation and publishing. Later on, the term was popularized in the UK by the “New Labour” party in 1997, becoming a dominant issue of the public policy in order to achieve sustainable development and economic growth (Pratt, 2010).

According to Cunningham (2002), creative industries are significantly differentiated by cultural ones, as the first emerged due to technological advancements especially as regards the digitization of media that took place at the onset of the 12st century. Under this

prism, several alternative definitions have been provided by different scholars and international organizations, most of which are based on five main criteria, creativity, symbolic meaning, intellectual property, use of value and different methods of production with the use of advanced technology (Galloway & Dunlop, 2007).

For example, according to WIPO (2003), creative industries are those involved in the creation, manufacture, production, broadcast, distribution and consumption of copyrighted works.

While according to UNESCO (2006), creative industries are sectors of organized activity whose principal purpose is the production, reproduction, promotion, distribution and commercialization of goods, services and activities of cultural, artistic and heritage-related nature. Later, UNESCO (2013) provided an alternative definition, suggesting that creative industries are forms of cultural production and consumption that are based on a symbolic or expressive element, providing new pathways of economic growth, cultural development, innovation and creativity.

Until today, the most popular definition and classification of creative industries has been provided by UNCTAD (2008: p.13), according to which the creative industries: (a) are cycles of creation, production and distribution of goods and services that use creativity and intellectual capital as primary inputs, (b) constitute a set of knowledge-based activities, focuses on but not limited to arts, potentially generating revenues from trade and intellectual property rights, (c) comprise tangible products and intangible intellectual or artistic services with creative content, economic value and market objectives, (d) are the cross-road among the artisan, services and industrial sectors, and (e) constitute a new dynamic sector.

In the world trade. According to UNCTAD (2008) approach, creative industries can be categorized into four groups: (1) heritage-related, including both local cultures and cultural sites, such as museums, libraries, festivals, archives and crafts, (2) arts, including visual and performing arts, such as music, photography and dance, (3) media, involving the four subgroups of publishing and printed media, audio visuals, new media and design, such as books, films, animation, video games, graphic design and fashion, and (4) functional creations, referring to creative services, such as advertising and creative R and D.

Recently, UNCATD (2018) acknowledged that blurring lines between creative and non-creative industries, suggesting the digital disruption that takes place during the last years makes the creative economy an increasingly complex arena. Significantly influential “meta-trends”, such as the rise of artificial intelligence, the domination of the digital landscape by audio-visual content, e-commerce and online advertising, shape the future of the modern creative economy, characterized by fuzziness and complexity (UNCTAD, 2018). In either case, it is widely acknowledged that creative industries play now a key role in global and national economic growth, as it has been suggested by numerous researches and supported by relevant empirical findings. For example, Correa-Quezada et al. (2018) provided evidence that the creative industries generate a significant number of new jobs, thus, having a positive impact on regional and national economy, Gouvea et al. (2020) showed that the creative economy significantly contributes to innovation and entrepreneurship, while Bilan et al. (2019) argued that the creative industry is driving force of sustainable economic development for economies under transition.

2.2 The Creative Worker

As the creative industries become more and more important for the economy of many countries around the world, a new class of employees has emerged, creative workers, who have their own identity, a wide range of skills and a different work ethic, frequently viewed as enablers of an inclusive and sustainable economic growth (Bokova, 2013).

The concept of the “creative worker” was first introduced by Florida (2002), who proposed the term of the “creative class” in order to describe a new economic class of workers who have a creative occupation. Florida’s (2002) theory, thus, separates the creative worker from others based on occupation, acknowledging three distinct groups: (a) the creative core, involving workers who generate new knowledge and mostly have a technical occupational profile, (b) creative professionals, consisting of workers employed in the creative industries who support socioeconomic growth, and (c) bohemians, made up of workers engaged mostly in individual arts creation, such as artists and musicians.

Although what constitutes creative work is still under debate due to lack of sound empirical data, the concept of the creative worker has dominated urban and regional studies in order to explain the linkage between economic development and the creative class (Chapain et al., 2013). First, the identification of creative workers, according to Florida’s theoretical approach, is based on the occupational criterion by considering both sectoral and working attributes. According to Bakhshi et al. (2013), a set of five criteria can be used in order to assess if an occupation is creative, the use of novel processes, high levels of resistance to mechanization of work, a non-repetitive and non-uniform working function, its contribution to the value chain, and high order interpretations and the creative services or artifacts. Based on this approach, if an occupation meets at least four out of five criteria, then it can be viewed as creative.

Of course, numerous occupations can be considered as creative building upon these criteria, from actors to fashion designers and from landscape architects to animators. Thus, complementary attributes have been also proposed in order to identify the creative worker besides the merely occupational criterion. According to Alfken et al. (2015), a creative worker differs from other workers in that his professional activities include high levels of creativity and problem-solving skills, transforming new ideas into valuable creations, higher-order thinking and inventing, producing innovations and fostering new knowledge creation, while being in the same time employed in the creative industries. In other words, the fundamental manner of work of the creative worker significantly differs from the one dominating the industrial society, the latter being characterized by repetitive and mechanistic work attributes (Clifton, 2008). Indeed, Bridgstock et al. (2015) suggest that creative workers can be found in a wide range of sectors and occupations.

Another distinctive feature of the creative class refers to skills possessed by creative workers, or at least required for engaging in a creative occupation. In that sense, it has been suggested that individuals working in the creative industries should be talented, highly educated, while possessing a wide range of capabilities and generic skills (Carey et al., 2019). As such industries require a combination of highly specialized knowledge and generic skills, the primary focus is to be placed on the creative capacities of individuals who are able to work in this sector (Holden, 2007). A creative worker should be technologically aware, talent-driven, highly skilled and competitive, creative, while having a thorough formal and informal knowledge of their specific domain (Groenendijk et al., 2013). The importance of other soft skills, though, should not be under-recognized. Such skills, being related with the contemporary modes of working, include interpersonal competencies, problem-solving, flexibility, change adaptation and personal resilience, all being in great demand by employers in the creative economy

(Deming, 2017). While technical and creative skills seem to converge, increasing emphasis is placed on a combination of creativity, technical knowledge, entrepreneurial thinking, team-working and project management skills.

Besides skills, creative workers set a distinct class of workers not only by considering the criteria of occupational structures or skills, but also by taking into account various sociodemographic attributes, such as age, educational level, political ideas and other variables (Alfken et al., 2015). Huggins and Clifton (2011) indeed suggest that besides occupational capabilities, such demographic, social and ideological characteristics are important variables that differentiate creative workers from other working classes, as it has been suggested by relevant empirical literature. For example, it has been argued that creative workers tend to be more well- educated by other professional groups, while they systematically invest in learning and personal developmental activities during their life besides their academic experiences (Throsby & Hollister, 2003).

In addition, it has been found that creative workers have a unique demographic profile and significantly differ from other employment structures in terms of gender, age and education (Kozina, 2018). Recently, McAndrew et al. (2020) investigated the cultural and political values of creative workers in the UK, and showed that they tend to be more left-wing, liberal and pro-welfare than other occupations, while they also are highly civically engaged and participate in various social.

Movements. Overall, creatives workers constitute a new class of individuals who besides being employed in the creative industries, they also possess unique characteristics in terms of skills, personal values, demographic profiles and social cues. As such, the occupational criterion is not the only one that should be taken into account while exploring the peculiarities and complexities of labor in the creative industries.

2.3 Labor Issues in Creative Industries

Labor within the creative industries has been gaining attention due to the specific particularities characterizing it, given that the production of creative products is embedded with hard work, deep knowledge and core aesthetic values (Legault & Weststar, 2015). In addition, creating work often depends on freelancing, providing high levels of flexibility and autonomy (Bain & McLean, 2013). Even so, and although it is usually believed that creative jobs are well-paid, much work is greatly challenging, packed with fierce competition among employees and diverse recruitment practices leading to job insecurity and/or intense working conditions (Menger, 2017).

According to Hennekam and Bennett (2016), self-management of work, high rates of freelancing, growing work flexibility and autonomy, intense working conditions and diverse career pathways are only some of the specific features characterizing contemporary labor in the creative industries.

In the same time, there is limited empirical and professional knowledge on the employability criteria used by employers in the creative industries. This is also due to the fact that recruitment and selection in creative industries is often made by informal hiring and taking advantage of social networks and connections. Without specific career pathways, such as job advertisement (Currid, 2007). Besides, past anti-commercial notions in such sectors have contributed to the recruitment and selection pattern, with creative workers experiencing job insecurity (Taylor & Littleton, 2008), while it has been also suggested that human resource management tools are still rare in these workplaces (Machado & Fischer, 2017). Furthermore, recent technological developments related to the rise of artificial intelligence and augmented reality impose further challenges for creative workers, increasing the need for highly skilled employees, who are expected to be resilient

to automation (Yoon, 2019).

Abbing (2002) suggests that income earned in the arts is significantly lower comparable to other occupations, while there is a consistent unequal distribution between creative workers, as the vast majority typically earns low income in contrast to a few superstars.

In the same time, there is also a wage gap between the two genders. Indeed, Zawadzki and Wojdyło (2018) provided empirical evidence that highlights the problem of limited transferability of advanced human capital into high wages in the creative industries. In particular, the authors showed that there is a large wage gap among creative workers than other professional groups, as well as that returns to educational and working experience are lower than the general population, meaning that academic education and years of working in the industry are not always translated into high personal income.

Besides relatively low earnings, creative professions have been widely described as precarious due to high unemployment rates or extended periods of underemployment (Bridgstock et al., 2015). According to Throsby and Zednik (2010), creative work is frequently accompanied by a portfolio career, that is to say poorly paid jobs in short term creative projects, based on a self-employment status. Indeed, it has been suggested that portfolio building is a crucial component of pursuing a career in the creative sector, while in conjunction with internships, lead to advanced opportunities for better paid jobs (Carey et al., 2019). On the other hand, and although such working arrangements are considered as effective means of acquiring the required working competences, and support career progression by combining work experience and on-the-field learning, they also fuel professional and income insecurity.

Neff (2012) argues that such working arrangements are considered typical both by employees and employers in the creative industries, with the first accepting them due to financial necessity or dominant and project-based working norms. In that sense, the creative worker takes full responsibility of his career and professional progression, while accepting respective risks which are not linked to his competences but mainly to other market forces. This dominant norm is also fueled by the oversupply of workers in some creative industries, while in the same time, many creative professionals stay in the industry considering the chance of having a great success leading to higher income (Taylor and Littleton, 2008). Hesmondhalgh and Baker (2010) argue that creative workers are often self-exploit, as they work for free in the form of internships or similar working statuses, while Bridgstock et al. (2015) verify this suggestion by pointing out that creative graduates move to a career path in creative industries that involve extended periods of unpaid work and insecurity. In the same time, significant barriers to entry exist, taking into account that creative industries are dominated by informal social networks. Salder (2020) also suggests that limited financial rewards and low job security levels highlight the importance of possessing certain personal and professional values by creative workers, such as individuality, flexibility and willingness to do more for less.

It has also been suggested that transitions from education to labor market within the creative industries are quite unstable, taking also into account the oversupply of graduates willing to compete for creative jobs (Allen et al., 2013).

In this context, gaining working experience through internships is a common strategy among graduates, which not only reflects the demanding nature of creative industries but also wider inequalities in higher education institutes. Indeed, graduates from minority backgrounds who are not always able to finance themselves during such unpaid working arrangements tend to take longer to find a permanent employment due to lack of resources

and adequate skills gained in the context of portfolio-building (Lee, 2011)

What is more, creative industries' reality indicates that the creative class is indeed characterized by a limited diversity in terms of gender, social class and ethnic background (Guile, 2009).

Lastly, it should be noted that significant labor issues in the creative industry are fueled by rapid and intense technological advancements, which not only transform the artistic work but also have a significant impact on dominant working arrangements. According to UNCTAD (2018), technological innovation in the forms of artificial intelligence and automation will fuel labor saving tactics by employers in the creative industries in order to increase productivity and reduce labor costs. In the light of this ongoing digital transformation, creative professions may be more precarious, as they have already been in the gig economy. On the other hand, these technological advancements, such as the rise of digital creative platforms, may Working opportunities to creative workers, who will be more able than ever to sell their work, products and services individually and without being employed by respective companies. In either case, it is apparent that technological and digital advancements create a new and highly complex labor landscape within the contemporary creative industries.

2.4 The Animation Industry

2.4.1 The Global Animation Industry

Provide for advanced. From the 2000s, the global animation industry has been Animated content is very popular around the world for many decades, although the animation industry's growth initiated with the popularization of TV, which opened new markets, allowed for the creation of more lengthy films and stimulated demand for a wider audience in demographic and geographical terms (Lee, 2011). Yoon and Malecki (2010)

provide a detailed history of the animation industry development globally, according to distinct periods. First, animation production systems from the 1920s until the early 1980s were dominated by artisan studios of Eastern European countries supported by local governments and producing traditional animation content and focusing on artistic quality. During the 1980s and 1990s, the “Disney model” provided the dominant paradigm for the development of the global animation industry resulting into two new world of animation production, the local artisan production and the globalized Hollywood system the latter taking advantage of the newly-developed technologies regarding computer animation. latter on the emergence of the Computer Design Imaginary (CGI) lead the market of animated content production, while raising the standards for audiences as regards aesthetics and leading a few studios to have a great success (e.g., Disney, DreamWorks, Pixar) (Yoon & Malecki, 2010). Provide for advanced. From the 2000s, the global animation industry has been fueled by new technologies and modern business models, as some media giants entered the market along with the emergence of new animation hubs, such as those of the East- Asian countries, including Malaysia (Yoon, 2017). With the exception of Japan, which has a long tradition in the animation industry, the latter was underdeveloped in most Asian countries due to limited audiences (Yoon & Malecki, 2010). This situation changed radically during the last decade, as the animation industry experienced dramatic changes as regards the global production system and the respective technological advancements. According to Wanger and Jang (2016), the animation industry has come through a great revolution since the late 2000s due to digital transformation of animation production and rapidly increasing demand for animated content by other audiences besides children.

In the same time, such technological advancements along with the globalization of production and the increasing consumption of entertainment products and services blurred

the lines between the animation industry and other creative industries and sectors, including video games and advertising. What is more, the increasing production costs led many media and animation giants to explore new opportunities in emerging economies, and as result, sub-contracting became a new mode of business in order to keep costs down. As such, new animation hubs emerged in the context of the animation industry geographical expansion, which started to produce animated content for US based and other foreign companies (Westcott, 2011). As Yoon (2017) explains, many Asian countries became niche markets for the development of animation, being now great Players in the global animation value chain. For example, China, South Korea Expansion that took place in the global animation industry during the last decades, now producing original animated content and being highly competitive in international markets.

The animation industry is considered as one of the creative industries, which in turn are gaining great attention around the world due to their significant impact on the economy (Innocenti & Lazzeretti, 2019). Among these industries, animation represents a unique and fast-growing sector, given the rising demand for entertainment and free-time activities. According to Yoon and Malecki (2010), the animation industry indeed represents a creative industry, characterized by a persistent agglomeration in few geographical locations or creative hubs, where expertise and skill are present in order to fuel creative work, along with specific modes of entrepreneurship and innovation that shape respective business patterns. Animated content, reflecting the modern pop culture, has thus become a source of creativity and economic growth, a linkage that characterizes a creative industry. Wu (2017) suggests that agglomeration practices in the global animation market, often resulting to local development and employment growth, have been also driven by technological advancements in the distribution “arena”.

With the emergence of new devices (e.g., iPads) and digital platforms (e.g., Netflix), the power of well-established distributors of animated content was significantly challenged, as more independent studios are now able to distribute their content to augmented audiences via various media (Daliot-Bul & Otmazgin, 2020). On the other hand, global conglomerates in the US and other established animation markets adopted more aggressive strategies via subcontracting, mergers and acquisitions in order to protect their competitive position, given also the fact that due to economies of scale achieved they are able to operate throughout the whole animation value chain, from initial production to final distribution (Wu, 2017). Indeed, according to Yoon (2017), subcontracting has become a very common practice of the global animation industry, being concentrated in regional venues, such as Asian locations, which in the same time try to produce local animated content. Overall, the contemporary animation industry is a complex business sector characterized by persistent agglomeration and changing dynamics between different creative hubs and well-established companies, which compete and in the same time collaborate in the international market at different levels of production and distribution.

2.4.2 The Global Animation Market

The global animation market is still dominated by a limited number of companies (“for example.” Warner Bros, Driven by increasing demand for digital content, entertainment, gaming and visual effects, as well as the expanding availability of the Internet and streaming services, the global animation market has developed rapidly during the last years, displaying great market growth (Yoon, 2017). Overlapping with other creative industries, such as design, gaming, TV, advertising and creative-relative production, the animation sector is now acknowledged as one of the most fast- growing

creative industries around the world, with USA, Canada, UK, Japan, South Korea and China being the leading countries (Ma et al., 2018). According to the Global Animation Industry Report (2017), its size in 2015 was approximately \$244 billion, while contemporary data suggest that further expansion has been achieved. In particular, a recent report highlights that the total value of the global animation, visual effects and video games industry in 2019 was \$264 billion, with its segments growing at an annual rate of 2-3%, while the respective growth rate for its streaming market reaches almost 8% annually (Digital Vector, 2020). According to the same source, the production cost for animated content is also rising, posing significant challenges to animation studios and companies.

For example, the respective cost per animation movie ranges between \$20-300 million, while costs for special effects as a percentage of the total cost reaches about 20% to 25%, taking into account the impact of recent technological advancements in augmented reality and digital technology tools.

The global animation market is still dominated by a limited number of companies (e.g., Warner Bros, Walt Disney Animation, Nippon, Pixar), with smaller studios finding it extremely difficult to enter the international market, functioning mainly as subcontractors and offering cost-effective labor for major animation studios (Standing & Standing, 2019). This trend is also fueled by the dominance of the western culture and the English language in animation-based cultural products, as well as high investment costs for computer technology and relevant innovations, resulting in the emergence of significant entry barriers. On the other hand, the overlap between different business sectors, including video games and online streaming platforms, offers new growth opportunities, taking also into account the availability of different media, as well as opportunities for partnerships and collaboration throughout the animation value chain (Standing & Standing, 2019). Indeed, the animation industry value chain includes a complex set of different activities, starting

from content conceptualization (“for example.”, idea generation, proposals, design), followed by pre-production (“for example.”, storytelling, character design) and production (“for example.” CGI, special effects), and resulting in post- production and content distribution. Indeed, the animation industry value chain includes a complex set of different activities, starting from content conceptualization (“for example.” idea generation, proposals, design), followed by pre-production (e.g., storytelling, character design) and production (“for example.”, CGI, special effects), and resulting in post- production and content distribution (e.g., editing, promotion, platforms). Accordingly, the industry contains several other related activities that can produce revenues, such as IP licensing and character business, that is to say characters Commercialization via gaming, theme parks, fashion and tonetic applications (Yoon, 2017). According to the Digital vector (2020), current meta-trends are now shaping a new reality for the global animation market, such as the evolution of visual effects and augmented reality that change both the production and consumption patterns of animated content, and rapidly evolving media consumption patterns, especially as regards the emergence of new streaming and digital downloading platforms. In addition, production is moving fast around different geographic locations around the world, given differences in terms of labor costs, tax schemes and available innovation resources, including skilled workforces. Furthermore, the international film market is growing fast in various emerging economies, while merchandise has become a major source of income for animated content producers. Lastly, it should be noted that changing viewing habits favoring shorter productions may provide significant developmental opportunities for smaller studios, with the latter coupled with cost reduction due respective technological advancements (“for example.”, combination of 2D and 3D animation, cloud services).

2.4.3. The Animation Industry in Malaysia

The digital economy is rapidly growing in Malaysia as an economic sector that attracts companies, talents and investments in order to further enable the country's digital revolution of the next years to come. With a population of 32.4 million, around 25 million are active internet and social media users, displaying a respective penetration of 79% and 75% (Aiza, 2019). The digital revolution and the boost of the animation industry in Malaysia started in 1996, when Current meta-trends are now shaping a new reality for the global animation market, such as the evolution of visual effects and augmented reality that change both the production and consumption patterns of animated content, and rapidly evolving media consumption patterns, especially as regards the emergence of new streaming and digital downloading platforms. In addition, production is moving fact around different geographic locations around the world, given differences in terms of labor costs, tax schemes and available innovation resources, including skilled workforces. Furthermore, the international film market is growing fast in various emerging economies, while merchandise has become a major source of income for animated content producers. Lastly, it should be noted that changing viewing habits favoring shorter productions may provide significant developmental opportunities for smaller studios, with the latter coupled with cost reduction due respective technological advancements ("for example." combination of 2D and 3D animation, cloud services). (Bunnell, 2004). As a result of this initiative along with other related policies, the economic zone so as to transform the country as a knowledge-based economy the Multimedia Super Corridor (MSC) was established as the next growth engine, introducing a high-technology business district based on the principles of a special digital economy contributed 18.3% to Malaysia's economy in 2017, outpacing the national GDP growth by 9.9% and fueling investments and growth in all related sectors, including the animation industry.

Nowadays, Malaysia is emerging as a global powerhouse of the animation industry, displaying substantial growth in the development of animated content, while employing more than 3,000 individuals (Aziza 2019). Malaysian animation was first established in the early 1980s, when the first animation series created in the country (Hikayat Sang Kancil) was successfully aired in 1983, and the government formed the National Film Development Corporation (FINAS) in order to assist the national film industry. During the next years, a growing number of animation studios emerged, producing local animated content or providing relevant animation services to foreign companies. In 2009, more than 200 animation companies were registered under the Malaysian Technology and Multimedia sector, displaying a significant growth supported by the government and the technological advancements that took place in the region, especially as regards the digital economy revolution (Khalis & Mustaffa, 2017).

During the same years, five big animation studios in Malaysia signed an agreement in order to collaborate with well-established foreign animation firms, driving the country's animation industry international development. In 2019, the animated film "Upin Ipin: Keris Siamang Tunggal" had great success and became popular in several countries outside Malaysia, following the success of the "Boboiboy The Movie" and reaching RM 26 million, while being nominated for the Oscar Award in the category of the Best Animated Film. Overall, Malaysia is emerging as an animation production powerhouse, pushed by governmental support for the use of digital technology and the local animation content (Juhan & Ismail, 2016).

Nowadays, the Malaysian animation industry displays substantial growth, with more than 372 studios being involved in various stages of production and employing more than 11,000 individuals (Chong, 2018). The local creative animated content reached RM 7.9 billion between 2013 and 2017, and some of its most well-known animated brands

produced by local animation studios (“for example.”., Animonsta Studios, Wau Animation, Digital Durian), such as Boboiboy, Ejen Ali and Didi, became very popular in the region. It worth noting that some of the biggest animation firms in Malaysia are operating in the entire entertainment value chain, by developing downstream relevant business activities in the games, apps and merchandising sectors (Chong, 2018). According to Malaysia Digital Economy Corporation (MDEC), the Malaysian animation industry’s worth reached in 2016 US\$187.7 million, employing over 3,000 individuals working at over 100 homegrown studios, with the latter producing more than 20 original IPs with an export value of US\$32.3 million, while penetrating more than 120 countries around the world (Aiza, 2019). Being home to a rapidly growing collection of animation studios, Malaysia strives to reach global levels in creating original animated content. According to Mak (2019), the Malaysian animation IP has reached global levels thanks to emerging production powerhouses, such as Cyberjaya, situated outside Kuala Lumpur and called the Malaysian answer to Silicon Valley (Mak 2019). Cyberjaya is home to the most well-known animation studios in Malaysia, serving as the engine of the local creative industries and as a major tech hub enabler.

In the same time, governmental support has been proven to be critical for the development of the Malaysian animation industry. In particular, differentiated support measures for the local animation industry, providing studios professional support and funds. According to Cartoon Brew Connect (2020), the Digital Content Grand, the main funding project of MDEC, provides grants ranging from \$72,000 to \$1,200,000 to local producers targeted at different stages of the creation process, from the initial development to the final merchandising. Such grants subsidize nowadays up to 40% of the total production costs and up to 80% on the development costs, while private investments are also growing at a fast pace. In addition, the Digital Content Creators Challenge also run by

MDEC provides financial awards to local creators, working as an incubator of IPs with international potential. Besides, the MAC3 Co-production fund launched in 2009 also provides grants to local innovative creative industries, supporting IP creation under the animation, games and computer graphics sectors.

The fact that the Malaysian animation industry is growing rapidly is also reflected in the respective academic scholarship, as this industry has been the topic of research of a growing number of studies. For example, Standing and Standing (2019) examined the concept of authentic innovation in relevance to the Malaysian animation industry, claiming that its success and uniqueness was significantly fueled by cultural authenticity, although strong challenges for maintaining authentic innovation are present, mainly stemming from global competition, decreasing licensing fees and lengthy production processes, with the latter calling local studios to generate alternative revenue streams in order to survive.

Moreover, Hua and Woods (2016) revealed that collective creativity practices adopted by Malaysian animation studios has also contributed to the industry's growth, although many studios are still struggling to reach their creative potential due to cultural conflicts.

From another perspective, Mohd Hasri et al. (2020) suggested that Malaysian animation studios tend to combine certain western culture practices and features in order to produce animated content of international appeal so as to be competitive, along with local cultural elements, resulting in a unique approach of transmedia storytelling. In addition, the authors claim that the animation industry's growth has been the result of a sound collaboration between the private sector and the government, with the latter having adopted a wide range of supporting initiatives and policy guidelines. Furthermore, Khalis

and Moustafa (2017) pointed out the significance of developing a local identity as regards the development of animated content for the future growth of the Malaysian animation industry, while recently, (Zhang & Ismail@Kamal, 2023) argues that the animation technology does play a dynamic role of the cultural heritage while depending on the importance of technical improvements.

Furthermore, Abu Bakar et al. (2020) discussed the challenges faced by local animation studios in terms of strengthening their brand to international animation markets, which can be mainly found in four areas, including the animation production, audiences, marketing and distribution, as well as local animation competition with overseas products.

2.4.4. The Impact of Covid-19 on the Animation Industry

The Covid -19 pandemic has had a devastating impact on many industries around the world, including the creative industries, where production and consumption of creative goods and services often requires physical proximity. Despite that, little is known yet about how creative industries, Including animation, have been affected by the pandemic, as well as how they have responded to respective challenges in order to survive.

According to Florida and Seman (2020), the covid- 19 pandemic has resulted in losses of 2.7 million jobs and \$150 billion in sales of creative goods and services in the US, representing approximately 1/3 of all jobs and 9% of annual sales.

Among the creative subsectors, the fine and performing arts were the most hardly hit, suffering losses of 1.4 million job and \$42.5 billion in sales due to lockdowns and social distancing measures? In the same time, creative occupations have gone through losses of more than \$74 billion in average monthly earnings, with those included in the fine and performing arts being disproportionally affected.

Empirical evidence on the economic impact of the pandemic on the animation industry is more than scarce, although it has been widely supported that the creative industries overall have faced and will continue to face many short- and long-term challenges (Belitski et al., 2021). These challenges remain despite the fact that many countries around the world have introduced and applied supporting measures in order to overcount difficulties faced by creative companies and workers, such as job retention schemes and public funding (Joffe, 2020). Barrero et al. (2020) stressed out that the pandemic has become a great challenge for different stakeholders in the creative industries, including freelancers, employees, and cultural entrepreneurs.

Especially for those subsectors depending on audiences, such as museums, firm creators, musicians, and festivals, the protective measures adopted by governments around the world have brought significant losses. In particular, the cancellation of several events along with the restrictions imposed in terms of social Distancing have greatly affected all creative workers and businesses (Pacella et al., 2020). According to Harper (2020), a significant proportion of the creative industries has been dependent on audiences and activities involving physical proximity, and as such, much of the entertainment industry has experienced different types of losses.

In the same time, the pandemic has pushed many businesses to adopt new and more resilient business models in order to operate within this crisis (Eggers, 2020). Belitski et al. (2021) conducted a relevant literature review and demonstrated that many businesses of the creative industries due to the constraints they faced during the lockdowns tried to reorganize their ways of interaction with their audiences, by adopting several digital technologies and models. These digitalization tools operated as mitigation paradigms to deal with the consequences of this public health crisis and continue to offer creative or cultural services in a socially-distanced world. On the other hand, it should be noted that

some creative subsectors were in a more challenging position, such as visual arts and concerts, demonstrating a lack of ability to adopt such measures (Davies, 2020). Overall, the creative industries along with the animation one faced great difficulties during the pandemic, although the long- term consequences cannot yet be fully understood or estimated.

CHAPTER 3

EMPLOYABILITY SKILLS

3.1 Conceptual Framework

During the last two decades, a great interest has emerged regarding employability Skills, as displayed both in the academic literature and the numerous report published by international and national governmental, industry and educational organizations. This interest has been fueled by various dynamics in the global labor market, including the changing working environment, globalization of markets, increasing labor mobility and technological advancements that now shape the business world (Suleman, 2018). As for the global labor market, there is a growing competition for jobs where a combination of different skills is required, given the complex nature of contemporary businesses and the increasing labor mobility across organizations and countries (Audretsch et al., 2021). In the same time, working practices have changed drastically due to globalization and technological advancements, while permanent jobs are decreasing opening the way to more flexible working arrangements (Svalund et al., 2018). As new working roles and job opportunities arise, employability is being acknowledged as a critical aspect of adapting in this networking environment, while the 21st century labor market is characterized by fierce competition among job seekers (Yang et al., 2015). It should also be noted that higher education institutions are called to be called to drastically change their curriculum in order to keep pace with respective labor market developments, as it has been argued that graduates are characterized by a growing skills deficit when entering the labor market (Behle, 2020). Indeed, Osmani et al. (2019) reviewed the related literature and showed that significant variations exist between employer's needs and skills possessed by new graduates when entering the workforce for the first time, calling higher education institutes

to adapt their curricula so as to cope with national employability strategies. This gap between employer's requirements and graduates skills has been described as a critical problem of contemporary economic growth efforts (González-Romá et al., 2018), as also acknowledged by OECD almost a decade ago (OECD, 2013). What is more, the changing landscape of the business world, with the increasing number and scope of creative and disruptive innovation industries set a new working paradigm, where occupation-specific skills are no longer sufficient (Teng et al., 2019).

As such, employability has become a buzz word in the contemporary academic research, although there is still no universal agreement regarding its definition and conceptual scope. This lack of agreement is also attributed to the limited empirical studies that operationalize different employability variables, as well as different methodologies used in the related academic literature (Chhinzer & Russo, 2018). Older definitions mainly focused on the general ability of an individual to get employed. For example, Hillage and Pollard (1998) defined employability as the ability to get initial employment and maintain it in the long-term, while Brown et al. (2003) argued that employability reflects the relative chances of acquiring and maintaining different types and statuses of employment.

Later on, more recent definitions started to put emphasis on the skills required in the labor market. For example, Bridgstock (2009) supported that employability is a set of skills and competencies that provide an individual for adequate preparation in order to move across jobs, while Nisha and Rajasekaran (2018) defined it as a group of skills, personal qualities and characteristics required by employers. In the same vein, De Vos et al. (2011) conceptualized employability as the continuous fulfilling, acquiring or creating of work through the optimal use of competencies (p. 438). What is important to mention here is that the concept of employability has evolved from a general ability to get employed or maintain a job position to a much more complex combination of skills,

competencies and capabilities required in the labor market. In addition, the contemporary conceptual focus is also placed in being competitive in the job market by taking into account employers' needs and requirements, given the growing gap between the latter and graduates' skills.

Having defined employability, different conceptual approaches have also emerged for employability skills. Among the various definitions that have been proposed, ILO's one is still a popular approach used in empirical studies and international reports. In particular, ILO (2008) defined employability skills as *"the skills, knowledge and competencies that enhance a worker's ability to secure and retain a job, progress at work and cope with change, secure another job if he/she so wishes or has been laid off and enter more easily into the labor market at different periods of the life cycle"* (p. 2).

In addition, ILO's (2008) report suggests that most employable individuals possess a broad-based set of basic and transferable high-level skills, while having a wide ranged education and training profile, enabling them to adapt to changes in the working landscape. According to the Australian National Training Authority (2004), employability skills are those *"skills required not only to gain employment, but also to progress within an enterprise so as to achieve one's potential and contribute successfully to enterprise strategic directions"* (p. 7).

Besides formal definitions, employability skills have been conceptualized by a number of other authors and academics. For example, Cassidy (2006) defined them as set of essential abilities involving the development of knowledge, expertise and mindset required for being successful in the workplace, Klibi and Oussii (2013) considered them as skills and qualifications required for different job positions and business environments that are necessary for employment success, while Yorke (2006) argued

that employability skills are a group of personal attributes that make an individual more likely not only to get employment but also to be competent in his/her chosen occupational field. The conceptualization of employability skills based on individuals success in the labor market is also supported both by Messum et al. (2015), who defined them as skills required to achieve professional progress and make use of an individual full potential, and Overtoom (2000), who argued that they represent an individual potential of being successful in the job market regardless of the chosen employment path or educational background.

Other conceptual approaches have provided different operationalizations, based on either a differential among individuals (i.e., job seekers) or a distinction between occupational-based or generic skills. For example, Perreault (2004) defined employability skills as personal qualities and attributes, involving also personal commitment that differentiate an individual from others possessing similar skills, competencies and experiences. On the other hand, Saad and Majid (2014) viewed employability skills from the view of graduates, defining them as the latter's abilities of using their personal and academic skills so as to adapt to the working landscape by having previously achieved tangible educational outcomes. Furthermore, Ju et al. (2011) argued that employability skills should be conceptualized as more general competencies and qualities that are not occupation-specific but rather required for different types of job positions. Accordingly, Robinson (2000) pointed out that unlike occupational-based on technical-specific skills, employability skills are generic and applicable to different types of job positions, firm's sizes and hierarchical levels.

All in all, the aforementioned definitions, first, recognize that employability skills are a wide-ranged set of different personal qualities, competencies, attributes and characteristics that provide an individual the ability to effectively adapt in the

contemporary labor market and be successful when acquiring a job position, maintaining it or moving across different positions or even occupations. Accordingly, such skills are developed over a life-time circle that is not exclusively limited to formal educational settings. Indeed, Suleman (2018) argues that employability skills are no longer viewed as skills expected to be developed in the formal educational system, taking into account that different occupational or informal educational settings significantly contribute to their acquirement and progression. In addition, employability skills critically contribute not only to personal and professional success but also to work efficiency and organizational success. As Teng et al. (2019) argue, these skills reflect graduates' readiness for today's employment market but they are also critical for achieving economic growth and fueling innovation in the context of the 4th industrial revolution.

3.2 Types of Employability Skills

The categorization of employability skills represents quite a challenge for the respective academic and research agenda, given the various conceptual and empirical approaches that have been developed until today. As such, there is no universal agreement about what really constitutes employability skills that are applicable in all positions or industries, although significant attempts have been made towards this goal. Becker (1964) was the first to distinguish general from specific skills, arguing that the former are skills required almost in every job while the latter are occupation-specific, representing the particular needs of an employer. Later on, this distinction was criticized due to the strict conceptual limited between these two categories. Stevens (1996) proposed the term "transferable" skills, in order to describe those skills that are in the middle of general and specific ones, being characterized by a wider applicability into different job positions and business sectors. Indeed, transferability has emerged as a critical attribute of today's

employability skills, as the boundaries among different industries, occupations and business are more and more blurred (Olsen et al., 2019).

Another conceptual and practical distinction that has been made in the academic literature is that between soft and hard skills, somewhat representing the dichotomy between general and specific skills (Hendarman & Cantner, 2018), while it has also been argued that this dichotomy is also evident on behalf of employers themselves, who tend to seek workers that are person-oriented rather than job-oriented (Branine, 2008). In other words, Branine (2008) suggests that employers prefer individuals who possess certain generic skills and transferable personal qualities that are applicable to a wide range of occupational settings (e.g., good personality, positive attitude). Suleman (2018) reviewed the relevant literature and found that these employability skills are discussed under an umbrella of various terms, such as key, core, generic, survival and transferable skills. Although slight differences exist among these labels, it is now widely accepted that employability skills are more general in nature. Among the different classifications that have been developed, Olivier et al. (2014) proposed a six-cluster categorization of employability skills, including the following:

- (1) Foundation skills, involving basic skills that are expected to be developed during previous education, such as written and oral communication, critical thinking and problem solving,
- (2) adaptive skills, referring to an individual's adaptive capacity of learning in an autonomous way, being creative in the workplace, developing new ideas, being innovative and flexible among different working situations,
- (3) team working and interpersonal skills, involving the ability of working with others in groups effectively, being emotionally intelligent, making group decisions, negotiating,

influencing other and resolving interpersonal conflicts,

- (4) IT skills, referring to technical skills required for working with technical support, maintenance and development, including a wide range of hard and soft technical competencies,
- (5) pure employability skills, including also a wide range of skills transferable to all job positions and occupations, such as time management, flexibility, adaptability and coping with stress and pressure, and
- (6) Technical or occupational-specific skills, which are specific to a chosen working domain.

Besides Olivier's et al. (2014) classification, several other categorizations have been proposed in the academic literature. For example, Chiu and Chuang (2016) suggested four types of employability skills, including:

- a) knowledge, which refers to an individual's professional knowledge base along with his/her capability of applying it in a real-world working context,
- b) attitudes, involving personal qualities that refers to social and interpersonal relationships, team working abilities and attitudes towards the profession and work itself,
- c) learning skills, that is to say skills that represent an individual's learning potential besides his/her formal educational background, and
- d) Career skills, which include skills of career management and moving across different sectors of the labor market.

Accordingly, Garcia-Aracil and van der Velden (2008) conducted an empirical research and by applying a factor analysis, proposed a different classification, including six types of employability skills:

- (i) Organizational skills, including skills that are transferable among different types of organizations, such as autonomy, being able to work under pressure, manage stress effectively and paying attention to detailed
- (ii) Specialized skills, which refer to occupational-specific skills including performing different activities and tasks in the individual domain of expertise and own occupational field;
- (iii) Methodological skills, involving skills and competencies that refer to problem solving, conducting autonomous research, handling and interpreting data, using sources and being analytical;
- (iv) Generic skills, which include general and widely applicable or transferable skills, such as critical thinking, oral and written communication, problem solving and adaptability;
- (v) participative skills, meaning skills that enable an individual to fully participate in an organization or a working team, including for example group planning, making decisions and accepting responsibilities and
- (vi) socio-emotional skills, mainly referring to interpersonal and team working skills and competencies, such as negotiating, resolving conflicts and being able to understand and manage own and others emotions.

In addition, Yorke and Knight (2006) proposed three types of employability skills, including:

- personal qualities (self-awareness, self-confidence, independence, emotional intelligence, adaptability, stress tolerance, initiative, willingness to learn, reflectiveness),

- core skills (reading effectiveness, numeracy, information retrieval, language skills, self-management, critical analysis, creativity, listening, written communication, oral presentations, explaining, global awareness), and
- process skills (IT literacy, commercial awareness, political sensitivity, ability to work in cross-cultural settings, prioritizing, ethical sensitivity, planning, acting morally, coping with complexity, problem solving, influencing others, arguing, resolving conflicts, decision making, negotiating, team working).

Accordingly, Sarfraz et al. (2018) conducted a literature review on employability skills and suggested four types of employability skills, including:

- a) interpersonal and collaborative skills (communication, interpersonal skills, written communication, customer dealing, presentation, verbal communication, oral communication, networking, reading, listening),
- b) relationship management skills (teamwork, flexibility, adaptability, collaboration, working with others, social interaction, accept feedback, taking directions, being open-minded, adapt to new situations, virtual collaboration, accepting and following others),
- c) cognitive and problem-solving skills (problem solving, analytical and conceptual thinking, decision making, critical thinking, ability to design systems),
- d) Productive self-management skills (time management, organizing, planning, self-discipline, working under pressure, self-management, priority setting, workload management, multitasking).

In another systematic review of the literature, Osmani et al. (2019) identified 21 employability skills required by employers of the 21st century, including communication, teamwork, problem-solving, technological skills, creativity, interpersonal skills, leadership,

self-management, flexibility / adaptability, critical thinking, time management, willingness to learn, planning and organizing, initiative, negotiation, pre-graduation work experience, working under pressure, self-confidence, good personality, independent working, and motivation. Rosenberg et al. (2012) have also suggested that the basic employability skills include the following:

- (1) Basic literacy and numeracy skills.
- (2) Critical thinking skills.
- (3) Management skills.
- (4) Leadership skills.
- (5) Interpersonal skills.
- (6) IT skills.
- (7) Systems thinking skills.
- (8) Work ethic disposition.

Lastly, the ILO's perspective on employability skills categorization should also be mentioned, as it has greatly influenced relative research. According to this perspective, the core skills for employability involve the following categories (Brewer, 2013):

- i. learning to learn (thinking abstractly, using learning techniques to acquire new knowledge, organize / process / maintain /interpret / communicate information, independent learning, conduct systematic inquiry, taking responsibility for own learning, manage time effectively, task management, adaptability, working safely, willingness to learn, effective use of time without sacrificing work quality).
- ii. communication (reading competencies, write effectively, listening / understanding / communicating effectively, comprehend and use materials such as graphs / charts /

displays, numerical literacy, articulate own ideas and vision).

- iii. team working (interacting with co-workers, understanding and contributing to organizational goals, intercultural working, planning and making decisions with others while supporting mutual outcomes, respect others, coaching / mentoring, providing and accepting feedback, leading, mobilizing others, taking accountability for own actions, building partnerships, resolving conflicts).
- iv. problem-solving (creative thinking, independent problem-solving, testing assumptions, identifying problems, taking into account the context of data, adapting to new circumstances, identifying and suggesting new ideas, collecting / analyzing / organizing information, planning and managing time, money and other resources).

3.3 Employability Skills Acquisition

Candidates who possess a wide range of generic and occupational-specific skills have greater chances of being employed, given that employability skills are positively related to work success and individual competitiveness in the labor market. What is more, it is crucial for these candidates to be able to demonstrate their employability skills and make use of them in different settings, so as to be more attractive to employers. Acquiring and developing employability skills, though, represents a major challenge both for educational systems and employers, given that such skills develop during the life-time course and are not limited to formal educational settings. According to Brewer (2013), the development of employability skills takes place in a wide range of different settings, starting from basic education and going through alternative paths after formal education is completed.

In particular, a combination of formal education and vocational training in the form of “learning by doing” is the most reliable way for acquiring and developing employability

skills required by employers. This assumption is further supported by ILO's (2010), according to which good quality education coupled with vocational training schemes endow young individuals with the major employability skills that enable them to be successful and productive in the working place and across different sectors and industries:

Among the different settings where employability skills are acquired, first, formal primary and secondary education play a crucial role in enhancing core skills such as critical thinking, creativity and problem-solving. Although primary education is essential for acquiring basic skills ("for example," oral and written communication, numeracy literacy, reading comprehension), building sound secondary education systems that are actively linked to the market is fundamental for preparing students to enter the workforce with the required skills in order to increase their employability opportunities.

Brewer (2013) argues that high-quality secondary education that provides for passages towards the labor market significantly improves opportunities for good jobs, although well-designed curricula are needed complemented with the adequate teaching methods and learning techniques.

Practices involving networking between the school and industries, as well as teaching techniques that adopt a project-learning approach consolidate the basic skills acquired in primary school, while providing opportunities for replicating the real- world working environment Krahn et al., (2000). It has also been found that school- based mentoring programs not only promote academic success among youths but also enhance their employability skills, while providing early access to the labor market (Randolph & Johnson, 2008).

Higher education is the next setting for acquiring and developing employability skills, given that graduates competence has been acknowledged as a critical component of

higher education reforms during the last years (Suleman, 2016). Indeed, the collaboration between higher education institutes and the industry has grown significantly, while graduates employability is considered fundamental and, thus, is pursued through different means, such as networking with businesses and transforming curricula but putting emphasis on core employability skills Pekmann et al. (2013).

Besides formal education provided in higher education settings, many universities now offer a wide range of training programs to students in order to acquire transferable employability skills (Laguna-Sánchez et al., 2020). Orazbayeva et al. (2020) argue that providing graduates with skills that match the needs of employers and increase their employability chances is now considered as one of the most important missions of higher education institutions, given the rising graduate unemployment rates as well as the gap between employers' expectations and graduates' real skills. In this case, Suleman et al. (2021) point out that employer's engagement with the design and provision of higher education programs should be systematically pursued, although still many barriers exist.

Vocational education and training are also essential for acquiring and developing employability skills in a life-long learning context. According to Rauner and Maclean (2008) vocational training is crucial for empowering individuals and preparing them to be adaptable in the changing labor market environment.

Such training not only provides for technical and occupation-specific skills, but also creates enhanced opportunities for fostering generic skills in a real-world context, such as leadership, time management and working effectively under pressure. Brewer (2013) argues that mentoring and coaching schemes applied in a real workplace represent an effective means of on-the-job training in order to widen professional knowledge and related competencies in an authentic way.

In addition, supervised work learning or experience has been acknowledged as an effective way for enhancing employability skills of graduates, encouraging self-reflection and promoting learning on-the-job (Kwan, 2015).

According to Kamaliah et al. (2018), participating in such work-based learning programs significantly fosters graduate's employability status when entering officially the labor market, while providing a sense of career direction and work readiness. In addition, supervised work experience increases professional awareness and promotes interpersonal competence, self-efficacy and self-confidence. Jackson (2015) also argues that these programs are essential for better linking employer's needs and real employability skills acquired by individuals, who are able through them to better understand the nature of the industry and the profession.

Apprenticeships are also crucial for acquiring and developing employability skills by combining in-class and workplace training, and are now acknowledged as effective means for fostering employability of youths. Therefore, they are systematically provided by employers and national educational systems in many countries around the world. Apprenticeships can be formal or informal. Formal ones are usually well-regulated by national authorities, paid according to an official contract with a predefined duration, and often have a particular goal-setting. On the other hand, informal apprenticeships represent a widespread practice in many countries and are not well-regulated (Brewer, 2013). It should be noted that informal or unpaid apprenticeships constitute a very common practice in the creative industries. In either case, apprenticeships are more than essential in providing core employability and occupation-specific skills. Indeed, Mindham and Schultz (2019) showed that youth apprenticeship programs significantly improve individuals' employability status and lead to positive employability post-graduation outcomes.

Several other passages have been also developed in order to improve employability skills. For example, active labor market programs combine skills development and on-the-job training along with job search assistance and/or job placement, significantly improving employability chances for individuals, especially for those of a disadvantaged background (Brewer, 2013). In addition, industrial training in various forms (“for example.” mentoring programs) also represent an effective means for developing core employability skills and professional competencies. Indeed, according to Lowden et al. (2011), employers tend to prefer candidates who have previously participated in different schemes of industrial and on-the-job training, as they consider them more attractive and capable of adapting in specific working environments and circumstances.

Besides internships, supervised work learning, other industrial training programs and formal education, individuals are able to improve their employability skills by other informal activities of independent and autonomous learning. For example, the use of Information and Communication Technologies (ICTs) allows for creative and autonomous self-development along with employability skills acquisition. According to Brewer (2013), self-production of new knowledge, engaging with professional related material and improved access to valuable content are all significant advantages of modern ICTs that foster employability skills in a self-paced and autonomous way. In addition, social media and the Internet provide now increased opportunities for professional networking and access to professional experts, thus, improving individual employability status.

Lastly, other means of developing employability skills should not be underestimated, such as participating in volunteer programs or other recreational activities and clubs.

3.4 The Gap in Employability Skills

Despite the fact that employability skills can now be developed in various educational and working settings, employers in many countries around the world report a serious shortage of well-prepared candidates who are able to adapt to real- world working requirements. This phenomenon is widely known as the employability skills gap or skills gap, representing a gap between skills required or expected by employer's for a particular job or industry and the real skills that graduates and candidates possess when applying for this job position (Safraz et al., 2018). Although higher education programs are now more available and accessible than ever, many employers found themselves incapable of reaching and attracting graduates with the right mix of employability skills. According to Messum et al. (2015), a great proportion of graduates have the required level of knowledge and technical background to perform a job and its relevant tasks, but on the other hand lack essential generic skills, such as emotional intelligence, creative problem-solving and critical thinking. Technical and occupational-specific skills are considered as basic requirements for applying for a job, but soft employability skills are also important and often underestimated by many job applicants.

Lim et al. (2016) argue that employers when hiring entry-level employees put great emphasis on their generic skills and soft competencies, which often lack due to limited working experience or unsuitable education. In Saad and Majid's (2014) study, this gap between employer's expectations and employee's skills were clearly demonstrated. In particular, the researchers looked on different industries and organizational settings ("for example." government organizations, multinational, SMEs), and found that many variations exist between employee's skills and employer's needs, although significant differences were also reported among industries.

What is important to mention is that all employers require from job candidates, beside technical and profession-specific skills, to possess more generic skills that are considered crucial for several aspects of the job, such as creativity, problem-solving, effective team working, and knowledge management. Such empirical evidence has been reported in several countries around the world. Therefore, it can be assumed that despite significant efforts that have been made towards the enhancement of youth's employability skills, a growing number of employers are not quite satisfied with job candidates employability status.

This skills gap is particularly evident in the case of higher education graduates and can be attributed to several dynamics. According to Wolff and Booth (2017), the main reasons behind this gap include the following:

- a general idea that workplace skills are not to be learned in higher education settings, whose mission is different and concerns the public good,
- the limited capacity of graduates to apply already learned skills in the real workplace due to personal limitations,
- the lack of verification systems referring to graduate's essential employability skills,
- the ineffective networking status between higher education and the industry, which lacks meaningful collaboration,
- inadequate curricula that do not take into account the real labor market forces and employer's expectations, especially as regards technological advancements in the marketplace, and
- the lack of opportunities provided to students as regards vocational education and training in actual workplaces with various forms, such as internships, real world

simulations and applied projects.

The employability skills gap has been verified in several studies, with available empirical evidence suggesting that employer's expectations do not match candidate's skills, especially as regards soft ones. For example, Succi and Canovi (2020) showed that although more than 85% of employers and higher education graduates consider soft skills are very important in order to be employed, significant differences exist in the ranking of the 20 most important skills between the two groups.

In addition, Rao (2014) showed that more than 50% of employers think that engineering and management candidates lack of the necessary soft skills required in the workplace, although their technical background might be very satisfying. In another study conducted in the healthcare industry, Messum et al. (2015) found that more than 22,0% of employers face significant difficulties when trying to attract the right graduates with the desired mix of soft and hard skills. Overall, the employability skills gap remains a great challenge of the contemporary labor market, with available evidence suggesting mostly a lack of soft and transferable skills, which in turn as considered more than essential for fostering individual employability.

3.5 Employability Skills in Malaysia

Individual employability and enhancement of respective skills has been an Issue of major concern in Malaysia during the last decades, as reflected both in national initiatives designed for this matter and the growing number of studies addressing it. As Malaysia's economy is transforming in a rapid pace, a skilled workforce is required in order to support its economic growth, coupled with significant changes in the labor market. In this frame, the Ministry of Higher Education has aggressively pursued strategies in order to enhance student's employability skills, having a mission of developing a high-skilled human capital

and a competitive workforce, taking into account employer's expectations Singh et al. 2013.

In the same time, Malaysia Education Blueprint 2015-2025 for higher education puts great emphasis on these aforementioned issues, while pointing out the need of producing graduates who are able to be resilient and effective during the country's economic transformation. What is more, vocational education and training has been acknowledged as essential for fostering its workforce competitiveness. According to Kenayathulla et al. (2019), significant efforts have been made by the national authorities as regards quality improvements in vocational education and training, given the government's mission for more high- skilled employees able to support the Economic Transformation Program.

Employability skills required by employers in Malaysia has been addresses by many studies during the last years, with available evidence suggesting a growing need for generic and soft skills that can be transferable across industries and different job positions. For example, Islam et al. (2013) found that the most important employability skills, as assessed by employers in Malaysia, include information management, effective use of the English language both in written and oral forms, project management, problem-solving, creativity, critical thinking, the ability to express own ideas clearly, as well as encouraging and motivating others. Rasu et al. (2010) investigated the views of 107 employers in the Malaysian manufacturing industry and showed that the most appreciated and anticipated employability skills, by ranking, were interpersonal, thinking, personal, resource, system and technology, basic, and informational skills.

In addition, Ting et al. (2017) found that English language proficiency and communication skills are considered invaluable by Malaysian employers in the private sector, especially in job positions involving customers' handling. In an older study, Singh and Singh (2008) showed that the most important employability skills linked with career advancement include adaptability, interpersonal and teamwork, time management, English language proficiency, ICT, leadership and communication skills, while Omar et al. (2012) found that graduates from Malaysian universities rank quite high in several categories of employability skills, including basic skills ("for example." reading and writing), thinking skills ("for example." decision-making and problem-solving), resource skills ("for example." time and risk management), interpersonal skills ("for example." participation, negotiation), informational skills ("for example." obtaining and evaluating information), and system and technology ones ("for example." choosing and applying the right technology).

On the other hand, other studies have reported a skills gap in Malaysia, following international trends on this matter. For example, Kenayathulla et al. (2019) showed that there are significant differences between employees and employers regarding the relative importance of soft and hard skills, including team working, leadership, basic, technical and ethical skills, and Abd Majid et al. (2020) found there is great variance in individual employability status among graduates in different locations of the country, which further depends on their research experience and their involvement level in university activities.

Furthermore, Cheong et al. (2016) found that Malaysian employers tend to prefer graduates from transnational private institutions than those coming from public universities, and Dania et al. (2014) indicated that graduate's self-concept, participation in career development activities and industrial training are the main predictors of individual

employability. The significant positive effect of industrial on- the-job training was also verified by Kamaliah et al. (2018), who showed that students vocational students participating in supervised work experience programs achieve a higher level of employability skills.

CHAPTER 4

EMPLOYABILITY SKILLS IN THE ANIMATION INDUSTRY

4.1 Employability Skills in the Creative Industry

4.1.1 Theoretical and Empirical Evidence

4.1.1.1 *Types of Skills*

The creative industries rely on world-leading talents and employees with highly developed skills, while presenting unique peculiarities in terms of and employability challenging working conditions packed with fierce competition and diverse recruitment strategies (Campbell, 2020). Self-management of work, high rates of freelancing, growing work flexibility and autonomy, intense working conditions and diverse career pathways are only some of the specific features characterizing contemporary labor in the creative industries (Menger, 2017).

Furthermore, recent technological developments related to the rise of artificial intelligence and augmented reality impose further challenges for creative workers, increasing the need for highly- skilled employees, who are expected to be resilient to automation (Yoon, 2019). As such, employability skills in the creative industries are of particular interest for all stakeholders involved, including employers, employees and job candidates (Lingo & Tepper, 2013). Among them, creative and technical skills seem to be of paramount importance for being employed in the creative industries, including the animation one Carey et al., (2019).

Beside creative and technical skills, soft ones should not be underestimated. Consequently, employability skills in the creative industries include three broad categories:

- i. Creativity skills ii. Technical skills
- ii. Soft (generic or transferable) skills

4.1.1.2 Creative skills

Creative skills referring to the creating of fresh works, new ideas and novel forms of art (O'Byrne et al., 2018), involve a series of cognitive competencies and thinking abilities required in order to produce content and generate innovative ideas.

According to McRobbie (2016), creativity-related skills involve innovation in terms of generation of new ideas, use of technology and production of creative content, as well as cognitive competencies and thinking abilities. As such industries require a combination of highly specialized knowledge and generic skills, the primary focus is to be placed on the creative capacities of individuals who are able to work in this sector (Holden, 2007).

Creativity has been long acknowledged as the core skill in the creative industries, as expected. According to Bridgstock (2011), creativity lies in the very core of creative industries, which in turn encompasses all activities originating from individual creative skills, having the potential for wealth and job creation. It has been suggested that creativity is a complex and multidimensional skill, which is expressed in many ways by different individuals and in different settings, encompassing both domain-specific and generic abilities, as well as competencies linked to learning and intelligence (Treffinger et al., 2002).

According to Claxton and Lucas (2011), creativity can be understood by the 5 habits of mind, including: (a) inquisitive (wondering and questioning, exploring and investigating, challenging assumptions), (b) persistent tolerating uncertainty playing with

possibilities (making connections, using intuition), (d) disciplined drafting and improving (developing techniques, reflecting critically), and (e) collaborative and cooperating appropriately (giving and receiving feedback, sharing the product of knowledge).

Creativity, as a mental and physical ability leading to tangible and intangible outcomes characterized by originality and usefulness (Kampylis et al., 2009), is critical in all sectors of the economy but mostly in creative industries, where innovation as a form of generating novel ideas is a fundamental aspect. The need for highly-skilled workers in terms of creativity in these industries is rising given the tremendous impact of the digital technology. According to the United Nations Conference on Trade and Development (UNCTAD, 2018), the digital economy has revolutionized the modern creative industry, providing new opportunities for creative content dissemination across countries. This free flow of creative work means that employees in creative industries should constantly come with novel ideas in order to be competitive, while understanding international market needs and ways to transform them into creative content.

Hartley et al. (2015) argue that the new creative and digital ecosystem reflects the fast globalization of ideas and information, and in this globalized world, being creative is of critical importance. Indeed, Easton and Djumalieva (2018) examined the most important skills for different occupations and found that among 39 generic skills, creativity was the most significant predictive variable of a profession's propensity to become important in the future.

Therefore, it is obvious that creativity is even more important in the creative industries and it is a skill that will be in greater demand in the future, due to creative job's resilience to automation. creative abilities constitute a skill domain in which robotics and augmented reality fall short, given that creative work requires imagination and creative

sense that are difficult or costly to be replaced by automation. Consequently, employees with strong creativity skills will be in high demand in the future of creative industries.

4.1.1.3 *Technical skills*

In accordance, technical skills, referring to abilities and knowledge needed to perform specific tasks, are also of major importance for entering the creative industries as an employee (Comunian & England, 2019). Thus, besides creativity, as the mental ability of creating and producing original ideas, technical skills are highly valued in the creative industries sector, including the animation industry. Employees in creative industries and animation are required to have high levels of technical skills regarding the application of computer software, taking into consideration the rapid growth of animation-related technology, such as 3D software (Furniss, 2008).

Given that employees in these industries are intensive users of technology, it is obvious that technical skills are more than important. In addition, digital technical skills emerge as a new skills domain in creative industries, where respective technological improvements have led to a great growth of digital creative content. As Munro (2017) points out, the digital revolution shapes the current landscape of creative industries, and therefore, digital skills are invaluable for individuals pursuing a career in the respective sectors.

4.1.1.4 *Generic skills*

The combination of creative and technical skills has been acknowledged as critical in the creative industries (Kamprath & Mietzner, 2015), although a great emphasis is now put on more generic, transferable soft skills (Munro, 2017). In relation to interpersonal competencies, social abilities and new modes of working, such as problem-solving,

adaptive ability, self-management, entrepreneurial thinking, project management and team-working, are important predictors of personal and employability success in the creative industries (Daniel & Daniel, 2015; Koppman, 2016; Lee, 2016). According to Mietzner and Kamprath (2013), workers in the creative industries should possess four major skills, i.e., interdisciplinary work, being open-minded, balance between a specialist and a generalist attitude, and the ability to transform occupational specific knowledge. Indeed, interdisciplinary team working is a vital skill in the creative industries, coupled with high-quality communication and collaboration competences.

Furthermore, being open-minded, responding and adapting to changes, displaying adaptability, Van Laar et al. (2020) argue that creative workers should possess a wide range of (digital) skills, which can be classified as follows: (a) information (digital) skills: these skills involve information and informational system management (“for example.” defining search queries, searching, selecting and evaluating information), (b) critical thinking (digital) skills: this category refers to high-order thinking skills (“for example.” setting arguments, self-disciplined thinking, assessing and interpreting information, reasoning, justification, critical reflection), (c) creative (digital) skills: these skills involve competencies in the creative domain (“for example.” adopting new perspectives, forming new ideas, creative self-expression, making connections among different ideas, being original and flexible), and (d) problem-solving (digital) skills: this last set of skills is related to the individual ability of acquiring and applying new and existing knowledge required to solve complex problems effectively and timely (“for example.” representing a problem, exploring and evaluating potential solutions, identifying goals, work jointly with others to come up to fruitful solutions according to commonly agreed goals).

In another study, van Laar et al. (2019) presented another skill framework for workers in the creative industries, including two broad categories: (1) core skills: technical, information management, communication, collaboration, creativity, critical thinking, problem-solving, and (2) contextual skills: ethical awareness, cultural awareness, flexibility, self-direction, lifelong learning. It has also been found that individual career management competence and intrinsic work motivation are important predictors of early success in individuals pursuing a career in the creative industries (Bridgstock, 2011). In addition, being competitive in the creative industries as an employee requires other lifelong capacities along with creative and technical skills, such as personal agility, adaptability, openness to change, willingness to constantly learn and unlearn, personal agility and working under pressure (Carey et al., 2019). The great importance of soft skills is also highlighted by UNCTAD (2018), according to which creative thinking, effective problem-solving, good judgment and adaptability are critical for individuals working with smart technology, such as those employed in the creative industries. The skill's combination importance has been also highlighted by employers of the 21st century (van Laar et al., 2019), although research focusing on employer's views and perceptions on employability criteria in the creative industries is quite limited. In general terms, it has been found that youth employers and employment counselors identify a well-prepared job applicant as critical for young individual's employability chances (Lindsay et al., 2014), as well as those soft skills significantly enhance graduates' employability dynamic, according to employer's perceptions (Succi & Canovi, 2020). It has also been suggested that there is a growing need amongst employers across various sectors for workers who combine creative and technical competencies along with STEAM skills, that is to say skills related to science, technology, engineering and mathematics, including design ones (Winckramasinghe & Perera, 2010). In the creative industries, besides

creativity and technical knowledge that seem to converge (Cunningham, 2009), leadership and management skills are frequently cited by employers as competencies difficult to find in job candidates while recruiting (Spilsbury & Bakhshi, 2019). In addition, there is evidence supporting a lack of digital, complex analytical, interpersonal, self-management and customer handling skills, as reported by employers in the creative industries (Carey et al., 2019).

Recently, van Laar et al. (2019) examined digital skills for the creative industries employees according to employers' perspectives, and found that the most important ones based on experts' views Include the following:

- i. technical skills, which are not limited to basic practical skills but also include critical thinking and understanding of "how things work",
- ii. creativity, concerning the effective management and execution of novel ideas,
- iii. soft skills, including open and transparent communication, and collaboration.
- iv. Analytical skills, referring mainly to problem-solving, finding creative solutions and decision making throughout projects' execution.
- v. Entrepreneurial skills, referring to ability of translating market needs into new ideas and creative content.

As such, employees in creative industries should be technologically aware, talent driven, highly skilled and competitive, creative, while having a thorough formal and informal knowledge of their specific domain Groenendijk et al. (2013); Carey et al. (2019). The importance of other soft skills, though, should not be under- recognized. Such skills, being related with the contemporary modes of working, include interpersonal competencies, problem-solving, flexibility, change adaptation and personal resilience, all being in great demand by employers in the creative economy (Deming, 2017; Munro,

2017). While technical and creative skills seem to converge, increasing emphasis is placed on a combination of creativity, technical knowledge, entrepreneurial thinking, team-working and project management skills (Neff et al., 2005).

It has also been suggested that career management competence, intrinsic motivation and the ability to think both creatively and practically are important predictors of success in the creative industry (Bridgstock, 2011; Koppman, 2016). Furthermore, it should be noted that acquiring new skills and developing existing ones constantly is highly required in the creative industries, where digital revolution and technological change alter systematically the modes of work and market dynamics.

All in all, it can be argued that the basic employability criteria in the creative industries refer to both creative and technical skills, as technical skills alone cannot guarantee the production of creative content, while creativity alone is not sufficient without the appropriate technical knowledge. In addition, soft skills are also of paramount importance, providing a sounder ability to perform well in a creative job and be competitive.

4.1.2 National and International Reports

It should also be noted that employability skills in the creative industries have been a topic of research of a limited by insightful hand of national and international reports. According to an UNESCO report (2015), core employability skills in the industries include the following: language proficiency, numeracy literacy, digital skills, ability to learn, entrepreneurial skills, critical thinking, creativity, risk assessment, decision making, managing feelings (emotional intelligence), academic and theoretical knowledge, computer literacy, teamwork, spoken communication, work ethics, and problem solving and analysis. The UK Sector Skill Council for Creative Media (Skillset, 2011) provide another

classification of skills required in the creative industries, including the following categories:

1. Creative multi-tasking (“for example.” use of different technology platforms, application on new working cross-functional approaches),
2. Multiplatform skills (“for example.” combination of creative and technical skills to produce content),
3. Managerial skills (“for example.” entrepreneurial and leadership skills, innovation, business intelligence),
4. legal knowledge (“for example.” knowledge of intellectual property regimes)
5. technical skills (“for example.” broadcast engineering, archiving of digital content),
6. sales and marketing skills, along with supply chain management skills,
7. diagonal thinking (“for example.” use of different media and platforms for storytelling),
8. foreign language skills, and
9. other business skills (“for example.” human resources management skills, financial and project management, fundraising).

In addition, the Scottish organization “Skills Development Scotland” (2021) has recently published a report on required skills in the creative industries, according to which the most important ones include: teamwork and collaboration, customer service, budgeting, social media handling, software Engineering, software development, project management, sales, stakeholder Management and occupation- specific technical skills. (e.g, SQL, JavaScript, Java, Python). Accordingly, the UK commission for Employment and Skills (2015) point out the need for combining creative, technical and managerial skills in order to be employed in the creative industries. Based on this report, the contemporary set of

skills in these industries represent a ‘Fusion’ of technology, business, creative and interpersonal skills, while team working emerges a vital competence of the digital economy. In addition, skills related to building relationships with customers should not be underestimated, especially for job positions where communication with clients is required systematically or periodically. Interpersonal skills are also fundamental provided that employees in the creative industries should collaborate frequently with other professionals involved in creative projects, such as technical experts (UK Commission for Employment and Skills, 2015).

The Australian Department for Communications and the Arts (2019) has also highlighted the importance of combining different types of skills in the creative industries, with the most prevalent qualifications in this sector being communication, creativity, management, and information technology. Furthermore, the UK’s Creative Industries Federation (2020) has published a short report according to which high demand skills by 2030 in the creative industries include the following categories: (a) interpersonal skills (collaboration, communication, social perceptiveness), (b) cognitive skills (originality, fluency of ideas, active learning), and (c) systems skills (judgement, decision making).

Lastly, Carey et al. (2019) of the UK Work Foundation Classified Employability Skills in the creative industries as follows:

1. Skills for work: physical and basic routine skills coupled with higher cognitive, social and emotional skills required for every day work and communication with different partners in various creative projects,
2. Creative skills: skills related to creativity, such as making connections, self-questioning, self-reflecting, making observations, networking, experimenting, storytelling, wondering and investigating, tolerating and managing uncertainty, and

critically reflecting,

3. Transferable skills: soft or generic skills that apply almost to every job position, such as problem solving, interpersonal skills, resilience, working under pressure, managing stress, adaptability, and change tolerance,
4. Technical and design skills: skills related to the use of technology and programming coupled with digital and social media competences, especially as regards digital content, design applications and other “createch” abilities,
5. Fusion skills: meaning skills that combine creative, technical and entrepreneurial competences, and
6. Other business skills: managerial and generic skills, such as marketing, communication, financial and project management, fundraising, human resources management.

4.2 The Case of the Animation Industry

4.2.1 Employability Skills

The animation industry, as a sector of the creative industries, require a highly-skilled workforce. A vast array of deep knowledge and skills are integrated in the skillset required during the production of an animated film, taking also into account that every animation is the outcome of a multi-dimensional project. Employability skills required in the animation industry encompass a wide range of specific and generic skills, knowledge and competences. Besides creative skills that are with no doubt of major importance, significant employability skills in the animation industry involved both specialized technical knowledge and soft skills that are transferable among different creative industries. Software handling, character building, storyboarding, aftereffects development

and graphic design are only some of the technical skills required by individuals pursuing a career in the industry, while other softer skills, such as communication, adaptability, flexibility and team working, should not be underestimated for their adding value on job candidates' professional profile.

Employability skills in the animation industry have received little research attention, as reflected in the limited number of studies that have focused on this matter, despite the fact that the industry is currently displaying significant growth internationally. According to an older report published by the UK Sector Skill Council for Creative Media (Skillset, 2011), there are two set of skills required by employers in the animation industry, i.e., core and specialist, resembling the dichotomy between occupation-specific and generic skills also required in the creative industries overall. In addition, these skills are differentiated among Animation firms in different levels of production or in terms of size. In particular, small firms supplying larger ones rely heavily in traditional art skills, creativity, inventiveness and innovation, as well on highly-skilled workers and flexible workforce.

Technical skills, including software development and computer graphics knowledge, are also important, while larger firms require more higher-order business skills, such as financial management, marketing and client liaison competencies, that is to say working closely with clients during the production process.

The same report points out a significant skills gap, as many employers in the animation industry face difficulties in finding applicants with the right set of skills. The most commonly cited skills lacking include technical ones (use of software packages, GGI, 3D, graphic design, computer usage, design and creation of creative content with the use of multiple platforms), as well as business and other generic skills (multi-tasking, financial

management, leadership, sales and marketing, commercial awareness, presentation and proposal writing, production management) (Skillset, 2011).

In another recent study, Alallan and Manaf (2020) grouped basic employability skills in the animation industry into five categories as follows:

- (1) communication: listening and understanding, speaking directly and clearly, proper writing, enacting networking, having empathy, sharing information, presenting ideas,
- (2) teamwork: devoting to productive working, contributing towards outcomes, assigning roles in the team, defining the strengths of the team members, receiving and giving feedback,
- (3) problem-solving: developing initiative solutions, providing practical solutions, solving problems in groups, testing solutions, applying various strategies, defining a problem, providing feedback,
- (4) planning and organizing: coordinating tasks timely, making decisions, evaluating criteria, developing vision, and
- (5) learning: being willing to constantly learn, seeking for new ideas, applying knowledge, investing in time. Interesting learning. Other empirical or theoretical studies have dealt with employability skills in the animation industry indirectly, having another research focus. For example, Yoon and Malecki (2010) argued that successful and competitive employees in the animation industry possess a combination of artistic talent and technical skills, while taking into account the growing penetration of CGI production and other animation software, computer and technical skills are in rising demand by employers. In addition, the accumulation of animation production in some parts of the world and especially in Asia, where

animation firms have entered the competition for full-length films, have led to an increase of demand for business and managerial skills, such as management production, client liaison and financial management.

Furthermore, Standing and Standing (2019) investigated the animation industry In Malaysia and concluded that authentic innovation is critical for the industry's growth. As such, it can be assumed that creative skills are highly valued by employers, especially as regards abilities of developing authentic and innovative creative content, as they constitute a significant factor of the animation industry success. It should be noted, though, that authenticity is coupled with deep knowledge and other technical skills. As such, the combination of technical and creative skills is more than important in order to achieve innovativeness.

The importance of creative skills is also highlighted by Hua and Woods (2016), who asserted that collective creativity is crucial for the success of animation studios in Malaysia. According to this study, collective creativity being practices in studios is Furthermore, Standing and Standing (2019) investigated the animation industry in Malaysia and concluded that authentic innovation is critical for the industry's growth. As such, it can be assumed that creative skills are highly valued by employers, especially as regards abilities of developing authentic and innovative creative content, as they constitute a significant factor of the animation industry success. It should be noted, though, that authenticity is coupled with deep knowledge and other technical skills. As such, the combination of technical and creative skills is more than important in order to achieve innovativeness.

The importance of creative skills is also highlighted by Hua and Woods (2016), who asserted that collective creativity is crucial for the success of animation studios in

Malaysia. According to this study, collective creativity being practices in studios is supported by teamwork and related practices, such as brainstorming and official or unofficial discussions among colleagues. In addition, collective creativity is fostered by employee's communication skills (e.g., the ability to talk freely and articulate effectively own ideas), collective decision making, and leadership. On the other hand, major barriers of being creative in the animation industry include cultural ones, that is to say high level of background cultural diversity among employees, as well as lack of sufficient organizational resources.

Yoon (2019) focuses on the Korean animation industry and concluded that employees should possess a complex set of creative and technical skills, given that jobs in the creative industries are highly imaginative, being characterized by a high degree of autonomy and opportunity for self-expression. An important finding of this study is that the wide adoption of CGI technologies has changed significantly the skillset required by employers in the animation industry, major barriers of being creative in the animation industry include cultural ones, that is to say high levels of background cultural diversity among employees, as well as lack of sufficient organizational resources.

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(2010) found that employers require workers with strong capabilities, consisting of artistic and technical skills, without underestimating the importance of other generic ones, such as engaging with clients.

Lastly, in Taiwan, Lai and Lu (2016) concluded that the growing penetration of CGI production requires workers who possess upgraded computer skills and a high creative potential, as animation studios look for creative talents that are able to participate effectively in the commercialization process on animated content internationally. Overall, it can be assumed that the skillset required in the animation industry combines a wide range of skills both occupation-specific and generic. Besides creativity, which is fundamental in order to be employed in animation studios, workers in animation are required to have high levels of technical skills regarding the animation-related technology, such as 3D software. In addition, business and managerial skills, which are assumed to be generic and transferable, are also highly valued, especially in sub-industries displaying international growth.

4.2.2 Acquisition of Employability Skills

The acquisition and development of employability skills in the animation industry goes through different pathways resembling the respective ones in the creative industries and including formal higher education as well as industry training with various forms, such as on-the-job training, supervised part-time work and official or unofficial internships. As regards higher education, the constant growth of the animation industry worldwide has led to a proliferation of animation studies, with many arts and other schools and colleges offering now degrees in the field, providing a diverse curriculum and different levels of knowledge and expertise. In Malaysia, over 20 institutions offer animation degrees and courses, with a growing number of students preferring them so as to increase their

employability chances.

However, receiving animation education in vocational schools or higher education institutions is not enough for acquiring the required knowledge and skills required by animation employees. According to Miyai and Yamaguchi (2016), skills acquired in conventional animation education are inadequate for the actual work required, both in creative and technical terms, as lectures are often of limited content and range. In addition, given that the animation industry is technology intensive, on-the-job training is more than important in order to be competitive in the animation labor market, while it has been also found that in the creative industries, receiving formal higher education does not necessarily lead to better employment outcomes in terms of full-employment or earnings (Jackson & Bridgstock, 2019).

Therefore, other venues are also required to gain the necessary knowledge and skills to work at a professional level in the animation industry.

In this frame, many animation schools and colleges offer internships to their students or graduates, under several universities – industry collaborations, aiming to upgrade human resources and develop new technologies. Through internship programs, students are able to work in real-world settings and gain significant experience, while acquiring and developing the necessary skills that fulfill Employer's requirements. Lai and Lu (2016) examined animation universities and industry collaborations in Taiwan and, indeed, found that such internship programs are very helpful in terms of training up animation students with artistic skills, creativity and basic knowledge of respective technologies. In addition, students have the opportunity of learning how to practically use state-of-art animation equipment and work in technological facilities that are not available in colleges. As such, they gain important experience, having increased opportunities of being employed after

the completion of their studies, while animation studios themselves benefit from having access to talents and recruitment of external competencies coming from college's alumni (Lai & Lu, 2016).

Internships are very common in the creative industries, including animation, constituting a significant pathway for acquiring and developing the required skillset through on-the-job training. Breznitz and Noonan (2014) argue that digital media producers take advantage of these programs in order to have access to artistic talents and novel ideas or even technologies. In the same time, internships lead to advanced opportunities for better paid jobs (Carey et al., 2019).

In fact, Internship programs in the creative industries play a crucial role for Enhancing work readiness and employability skills (Shade & Jacobson, 2015). Although usually unpaid (Siebert & Wilson, 2013), internships constitute an avenue leading to improved opportunities for paid job positions, as they are considered as effective means of acquiring the required working competences, and support career progression by combining work experience and on the-field learning (Daniel & Daniel, 2015).

Lastly, it should be noted that job candidates in the creative industry should be able to prove their skills, knowledge and competencies through various formal means, including their portfolio. Indeed, it has been suggested that portfolio building is a crucial component of pursuing a career in the creative sector (Mietzner & Kamprath, 2013). Indeed, according to Pumares et al. (2015), academic diplomas might have limited value to the animation industry if not supported by a good portfolio. What is more, portfolio building in these industries has been directly linked to new modes of work, as creative workers often engage in portfolio working arrangements assuming individual risk and responsibility for their career (Neff, 2012). According to Bridgstock et al. (2015), portfolio building

throughout a creative worker career reflects his/her skillset and displays other entrepreneurial aspects, such a flexibility, adaptability and autonomy. It does not come as a surprise that full-time employment in the creative industries, including animation, has been partially replaced by portfolio working (Jackson & Bridgstock, 2019).

4.2.3. The Covid-19 Impact

Although no evidence exists regarding the impact of the recent covid-19 pandemic on various employability issues in the animation industry, some researchers have tried to provide insight on the respective labor-related consequences in the creative industry overall. Belitski et al. (2021) argued that the the effects of this public health crisis were profoundly felt by creative workers and especially freelancers, casual workers and part time employees, who were found unable of transforming their way of work. Florida and Seman (2020) further supported this view, by demonstrating that the vast majority of small creative businesses, freelancers and self-employed in the creative industries could not easily adapt to the new socially-distanced business environment, finding themselves in a position of struggling. The same researchers showed that creative occupations in the fine and performing arts were disproportionally affected by the pandemic, due to different freelancing and part-time modes of working, representing a 34.1% of all employment losses in the creative industries in the US, and 35% of all earning lost.

What is more, many creative workers during the pandemic could not largely benefit from governmental supporting measures due to labor fragmentation issues and taking into account that a significant proportion of creative workers remain “invisible” or ineligible for such schemes (Florida & Seman, 2020). In the same time, many creative workers switched to different modes of working, such as tele-working and virtual performances, trying to be resilient and comply with social distancing measures (Banks & O’Connor, 2020). On the

other hand, Comunian and England (2020) showed that the pandemic has greatly threatened the freelancing business in the UK creative industries, while concluding that covid-19 has exposed both the unsustainable price of the creative and cultural work, and its precarious nature. Lastly, it should be noted that all businesses in the creative industries have tried to modify their working or business models, including animation studios, by introducing tele-working and other flexible working modes. In this frame, Briant and Crowther (2020) argued that recent changes in workplace activities in the creative industries as a result of the pandemic have offered an opportunity of developing remote internships via on-line models, which can be considered as appropriate strategies for supporting students' employability potential and skills.

CHAPTER 5

RESEARCH METHODOLOGY

5.1 Research Aim and Research Questions

Research into employability issues in the creative industries is currently receiving considerable attention, given the unique labor conditions characterizing them. As Malaysia is emerging as a global powerhouse of the animation industry, research on the employability skills can provide a valuable insight on the respective labor market. Indeed, Malaysia is emerging as a global powerhouse of the animation industry, displaying substantial growth in the development of animated content, while employing more than 3,000 individuals.

In the same time, available empirical knowledge on skills of creative workers and especially those working in the animation industry is scarce, while other labor-related topics being under-investigated. Accordingly, this study aims to fill this research gap, by investigating students' and employers' views on employability skills in the animation industry, along with other employability-related issues, including portfolio building and internships. The respective research questions include the following:

1. Which are the most important employability skills in the animation industry, according to students' and employers' views?
2. Which are the most important employability skills in the animation industry, according to students' and employers' views?
3. Which are the most important technical, creative and soft-generic (or social) skills in order to be employed in the animation industry?

4. How portfolio building is related to advanced employability opportunities in the animation industry?
5. How internships can provide for the acquisition and development of the required employability skills?
6. What challenges students and employers in the animation industry face regarding the aforementioned issues?
7. How students' and employees' views are differentiated in terms of their views as regards employability skills, portfolio building and internships?

5.2 Research Design

This study was performed via a qualitative research approach, which is very common in social sciences in order to produce information-rich data and draw conclusions according to the respective research questions, Seeking exploratory nature of research. In recent years there has been a strong interest in qualitative research and there have been multiple and varied applications of qualitative research methods across social sciences. According to Denzin and Lincoln (2005), qualitative research is a situated activity that places the observer in the world. It consists of a set of interpretive and material practices, which make the world visible. These practices are transforming the world, as they turn it into a range of self-representations, including field notes, interviews, conversations, photographs, recordings, and diary entries. At this level, qualitative research involves an interpretive, naturalistic approach to the world. This means that Qualitative researchers study things in their natural context, trying to give meaning or interpret phenomena in terms of the meanings that people give to them (Denzin & Lincoln, 2005: 3).

Based on Creswell's work (2007), qualitative research is characterized by the following features: (1) its interest lies in the description and understanding of the uniqueness of human experience, the experiential reality of the subjects, the particularity of their consciousness and experiences, (2) its goal is the understanding of an event in the context of the totality of social life, (3) its dominant tool is framed by understanding and synthesis, (4) its fundamental model of analysis is the interpretive post factum model, (5) its main paradigms include reason, dialogue and argumentation (interpretive approach), and (6) the preferred research techniques are communication, narration and interaction.

Furthermore, qualitative research is characterized by significant advantages. For example, it provides the researcher the ability to investigate the peculiarities of the phenomenon that interests him and not to remain in a fragmentary, abstract and static study. This need also arises when the researcher is unable to identify or distinguish specific variables for the study of the phenomenon or when there is no theory available to explain or understand it (Anfara et al., 2002). What is more, in qualitative research, the researcher seeks to carry out an in-depth, detailed study and understanding of the individual aspects or dimensions of the phenomenon under study, while seeking to formulate a genuine, authentic, dynamic and holistic approach (Berg, 2001).

Based on these advantages, this study adopted a qualitative research approach and, accordingly, a qualitative methodological process. Mason (2017) provides a qualitative methodological research design based on the following steps: (1) identification of the research field, (2) determination of the purpose of the research, (3) specification of the research questions, (4) methods for the production of the research material, (5) selection of the sampling strategy, (6) analysis of the research material, and (7) compliance with the research ethics and principles.

Following this design methodology, the research field of this study is the labor market of (Malaysian) animation industry, which is included in the creative industries and displays significant growth during the latter years, raising a number of labor-related issues, including employability potential among graduate students. As for the purpose of the research, this study aims to investigate the employability skills required in the animation industry, by taking into account the respective views of the main labor market stakeholders, that is to say students entering the labor market and employers. The research questions, referring to the third step of this research design paradigm, are specified according to the research aim and include employability skills and their acquisition or verification via internships and portfolio building.

Accordingly, the research material was produced via the conduction of in- depth qualitative semi-structured interviews with students and employees in the animation industry. This strategy of data production was selected among others (“for example.” focus groups, observation, ethnography) because it allows participants to express in their own words and elaborate on their personal views and experiences in their academic, professional and working context (Barriball & While, 1994).

All interviews were recorded and transcribed, and data were analyzed via a thematic analysis, a method allowing for the categorization of repetitive patterns of meaning across the data set (Clarke et al., 2015), while providing a considerable level of freedom and flexibility (Roulston, 2001). As for the sampling strategy, this a sampling of homogeneous individuals and snowball sampling (see next sections). Lastly, compliance with qualitative research ethics and principles was accomplished by safeguarding full participants’ consent, by ensuring anonymity and confidentiality, and by informing participants about the research aims and objectives.

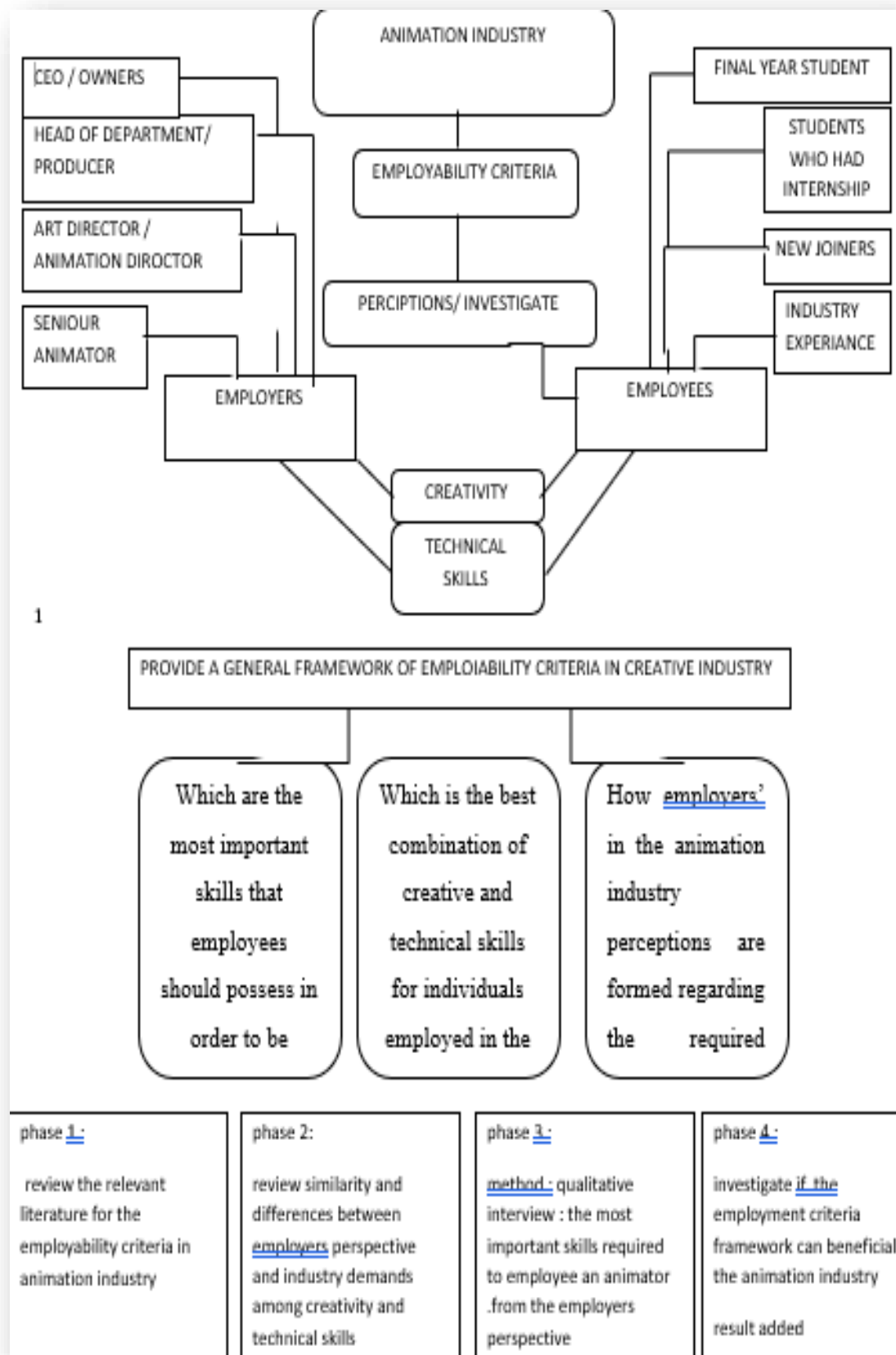


Figure 5.1 Research Framework

5.3 Research Tool

This qualitative research was performed with the use of in-depth interviews, with the latter being the most widely accepted and common strategy of collecting data in qualitative studies. The use of the qualitative in-depth interview is based on an ontological approach to what constitutes the social world, which perceives people's experiences, views, interpretations and interactions as important dimensions of the social reality (Baronov, 2004). Similarly, it presupposes an epistemological position that recognizes that knowledge about these ontological dimensions can be produced if the researcher engages in an interactive relationship with people, listens to them and gives them the opportunity to express their views and make sense or narrate their experiences (Brannen, 2005). On the other hand, the epistemological limitations of the in-depth interview concern the fact that the researchers do not have substantial access to the minds of the respondents and can be informed only about those dimensions (perceptions, experiences, interpretations) that the participants choose to reveal in a qualitative interview (Mason, 2017).

Depending on the degree of structuring or standardization of the interview by the researchers, we can distinguish the semi-structured and the unstructured interview. In these types of interviews, researchers seek to produce as rich research material as possible by giving research participants the opportunity to talk about their perceptions, thoughts or experiences freely and in depth (Newman & Robson, 2014). This study employed a semi-structured approach for performing the in-depth interviews with the participants. The semi-structured in-depth interview consists of a set of somewhat predetermined questions and is often used by scholars in order to have a guide to the topics they consider important to cover in the interview. It should be noted here that this type of interview is flexible: a) in terms of modifying the content of the questions

according to the respondent, b) in terms of deepening some issues with participants deemed appropriate, c) in terms of the order with the which questions are asked; and (d) by adding or removing questions or topics for discussion (Bauman et al., 2002; Mason, 2017).

In general, the design and conduct of qualitative in-depth interviews is a complex and demanding task that requires systematic preparation on the part of researchers. A particularly important dimension in research that adopts qualitative interviewing is the design and correct wording of the questions before conducting it. The interviewer, however, needs to be able to make decisions on the spot during the interview regarding, among others, the order, the wording, the style, the extent or the addition or subtraction of the questions, always having in mind the research questions but also the specific circumstances and the interaction with the participants (Mason, 2017).

In-depth interviews are characterized by significant advantages. In particular, they enable researchers to (Creswell, 2007):

1. Explore in depth perceptions, opinions and values,
2. understand the complexity that characterizes human experience and behavior,
3. see the phenomenon under study through the “eyes” of the respondents and to highlight the “voice” and the speech of the participants in the research,
4. have an interactive communication with participants,
5. investigate issues that were not predetermined,
6. Modify even the original design of the research process.

On the other hand, in-depth interviews are characterized by some limitations. In particular, a qualitative in-depth interview is an extremely demanding and time-consuming method not only in terms of conducting it but also in terms of designing and analyzing

the data. It also requires significant skills, communication skills, experience, flexibility, and particular sensitivity to ethical issues and genuine interest from researchers (Mason, 2017). It should be also noted that it is not an easy choice, contrary to the prevailing view, that is, it is not far from everyday discussions, which can be easily and without research planning carried out by anyone (Denzin & Lincoln, 2008). Overall, despite the increased demands on time, effort, planning and skills, quality interviewing can reward the researcher, as it is an interesting, creative and often exciting method of generating research data, which gives access to the complexity of the human nature, experience and activity.

As previously mentioned, this research was performed with the use of a semi-structured in-depth qualitative interview, which was conducted with the two subsamples of this study. As regards students, the questions of the interview were the following:

Table 5.1: Students “in-depth interview questions”

Demographic characteristics
Q1: What is your age?
Q2: What is your major expertise?
Q3: What are the relevant to animation degrees you have?
Q4: What was your tasks in the internship?
Q5: How much working experience do you have?
Q6: In which area related to animation was your previous experience?
Main interview questions

Q7: What are the most important technical skills to be employed?
Q8: What are the most important creative skills to be employed?
Q9: How does the portfolio enhance the chance of getting employed?
Q10: How are your creative and technical skills presented in the portfolio?
Q11: What are the technical and creative skills that internship provided?
Q12: What are the challenges that you faced during your internship?

Given the semi-structured nature of the in-depth interview, additional questions were asked to the students participating in this study, such as “Do you think the internship should be provided to all the students?”

As regards the in-depth interview conducted with employees, this included the following questions:

Table 5.2: Employees “in-depth interview questions”

Demographic characteristics
Q1: What is your age?
Q2: What is your major expertise?
Q3: What are the relevant to animation degrees you have?
Q4: What was your tasks in the internship?
Q5: How much working experience do you have?

Q6: In which area related to animation was your previous experience?
Main interview questions
Q7: What are the most important technical skills to be employed?
Q8: What are the most important creative skills to be employed?
Q9: What are the technical and creative skills that internship provides? What can the students learn?
Q10: What are the technical and creative skills the portfolio can present?
Q11: What are the challenges that you faced as an employee in getting those technical and creative skills?

Additional questions asked to the participants due to the interview being semi structured including the following:

1. Is there any advice you would like to give to the new joiners?
2. Some animators get burn out what are your thoughts on that?
3. If you have a group of animators, how do you divide the tasks in order to meet the dead line?
4. What skills should the new joiners have in order for them to have a better future?
5. What are the skills the new joiners that are missing?
6. Do you teach them how to use specific software?

5.4 Sampling and Sample

5.4.1 Sampling Strategy

Sampling refers to the method used by researchers in order to select a given in order to select a given number of individuals from a given population to be included in a study. In general, the sampling process is an important part of research planning as the selection of the sample affects both the quality of the data and the conclusions of the research. On the other hand, researchers who follow the interpretive research example adopt a theoretical or expediency sampling approach (Mertens, 1998). In contrast to the quantitative approach, the goal here is not the generalization of findings from a sample to the whole population. In qualitative research, sampling is mainly aimed at identifying what Patton (2002: 230) calls information-rich cases, that is to say cases which are “offered for in-depth study and of which one can to learn a lot about issues of crucial importance for the purpose of research”.

The researchers who apply the strategy of intentional sampling (purposeful or judgmental sampling) actively and deliberately selects the sample whose members will best serve the purposes and research questions of his study. In order to achieve this, the researcher can rely on the knowledge he has about the phenomenon under study, on the existing literature or even on some of the preliminary data of the research itself (Marshall, 1996). Patton (2002) identifies a number of sampling strategies that can be used in qualitative research and that fall into the broader category of intentional sampling, including the following: extreme or deviant case sampling, intensity sampling, maximum variation heterogeneity sampling, homogeneous samples, typical case sampling, critical case sampling, snowball or chain sampling, criterion sampling, confirming and disconfirming cases, opportunistic or emergent sampling. The above sampling strategies,

although they may serve different purposes, are all aimed at identifying cases that have the potential to provide the greatest possible information about the subject of the investigation and are suitable for a thorough and in-depth study. They can also be used in combination in order to enhance the credibility of the whole research process.

Another question that a researcher conducting qualitative research has to answer refers to the size of his sample and how many units he should include in it. In qualitative research there are no numerical constraints and fixed rules regarding the sample size (Patton, 2002). The sample, however, need not be quantitatively large. On the contrary, this can work negatively, if the goal of the researcher is to highlight subjective and distinct characteristics and in-depth understanding of individual experiences (Mason, 2017). Of course, this does not mean that large samples are prohibited in qualitative research. However, the small size of the samples is also dictated by practical reasons, as the cost and especially the time required for the collection and analysis of qualitative data would make it extremely difficult to manage a very large sample (Mason, 2017).

Another question that a researcher conducting qualitative research has to answer refers to the size of his sample and how many units he should include in it. In qualitative research there are no numerical constraints and fixed rules regarding the sample size (Patton, 2002). The sample, however, need not be quantitatively large. On the contrary, this can work negatively, if the goal of the researcher is to highlight subjective and distinct characteristics and in-depth understanding of individual experiences (Mason, 2017). Of course, this does not mean that large samples are prohibited in qualitative research. However, the small size of the samples is also dictated by practical reasons, as the cost and especially the time required for the collection and analysis of qualitative data would make it extremely difficult to manage a very large sample (Mason, 2017). According to Marshall (1996: 523), “the appropriate sample size for a qualitative study is the one that

adequately answers the research question”. Other factor that affects the sample size are: the scope of the study (the wider the content of the study, the more time and sample required), the nature of the subject, the quality of the data, the design of the study (for example, repeated interviews produce more data) and the research method (for example, in-depth interviews yield rich data from fewer individuals) (McGrath & Johnson, 2003).

In this research, a homogeneous sampling method was adopted, meaning that individuals (students and employees) who participated in this research were selected due to having common characteristics in order to provide in-depth understanding of the phenomenon under investigation, i.e., employability in the animation industry. It should also be noted that this sampling method is also common in focus groups. In addition, this sampling method was combined with a snowball sampling strategy, especially as regards employees of the animation industry, so as to reach more individuals working in the industry. In snowball sampling, the researcher first selects some key individuals from the population he is interested in, who have the characteristics, knowledge and social networking to lead him to locate other members of the population. This strategy is usually applied when there is difficulty in locating members of a particular population or when the researcher does not know who has the information that is important to his study. As regards the sample size, a relatively small size of research participants was selected, given that these individuals could provide in-depth information about the matter under investigation. What is more, repeated in-depth interviews produce information-rich data, so a larger sample would not add further insight to this research.

5.4.2 Students Sample

This study involved eight (8) senior students from the animation program in the faculty of applied and creative arts in the Universiti Malaysia Sarawak (UNIMAS)

(Malaysia) who completed their internship in their final year of study, and who held the minimum amount of industry experience and about to complete their bachelor degree. Regarding their gender, 3 were females and the rest 5 were males, having an average age of 22 years old (ranging from 21 to 24). The average length of internship for the whole sample was three months, and the respective average length of working experience besides the internship was four months. Table 3 below presents the demographic, academic and working profile of the students’ sample.

Table 5.3: Students “sample”

	Age	Major expertise	Degree	Internship tasks	Working experience	Animation related experience
S1	23	Design technology / animation/ Concept arts	BA in animation	Concept arts for games / 2D and 3D assets	2.5 months	2D and 3D animation
S2	22	Animation	BA in applied arts	Advertisement, motion graphics	2.5 months	Motion graphics
S3	22	Motion graphics / animation photography / video post-production	BA in design technology	File arrangement and photography setup	2.5 months	Graphic design
S4	26	Animation / comics / graphic design	BA in Animation /Diploma In marketing	Practice designer	2.5 months (internship) 5 years in marketing and sales	Comics

S5	24	Animation	BA in animation	Character building and motion graphics	3 months	No previous experience
S6	21	Animation	BA in animation	Printing shirts and digital editing photography	3 months	Character design
S7	24	2D animation	BA in design technology and animation	Assets creation, character building, 2D animation	3 months	2D animation
S8	23	Drawing	Drawing	Clean up artist character lipsing	2.5 months	Graphic design

5.4.3 Employees Sample

This study involved sample of nine (9) employees working in the animation industry, who were selected based on the criterion of having of having the ability to make decisions on hiring new employees, usually based on their prewise experience and working profile (“for example.” working as an Art Director or as a Senior Animator), excluding the Human Resources, marketing and other unrelated department. As such, information gathered through in-depth interviews in this case reflected the industry perception, that is to say employers’ views on employability criteria and other related issues.

As regards their gender, all employees were males except from one female, with an average age of 31 years old (from 26 to 44 years old). Accordingly, their average length of working experience was 10 years (from to 20 years). Table 2 below presents the demographic, academic and working profile of the employees’ sample.

Table 5.4: Employees “sample”

	Age	Major expertise	Degree	Internship tasks	Working experience	Animation related experience
E1	31	Mediator	BA film/animation	Arrangement of positions in different departments	8 years	8 years in the film and animation industry
E2	32	Architecture	-	-	15 years	Design
E3	33	Games modelling	Diploma in 3D Computer Graphics animation	Assigning tasks	10 years	Computer Graphics, commercials, animation
E4	30	Animation	Diploma in animation	Training	7 years	Composing and multi-tasking
E5	32	Film and art director	-	Providing guidance	10 years	Production
E6	34	Animation	Business administration	Assigning tasks	12 years	Creative education in animation
E7	34	Lead animator	Animation studies	Training	13 years	2D animation
E8	32	Animation	No studies	-	10 years	Film and animation
E9	44	Drawing artist	No studies	Guidance	20 years	Comics and clean-up artist

5.5 Data Collection

As previously mentioned, data of this study were collected via the conduction of in-depth qualitative interviews with students and employees in the animation industry. As regards students, a request of permission to interview the undergraduate students of the applied and creative art design technology (animation) who completed the internship as mandatory part of their studies was received from both the Dean and Deputy Dean (Undergraduate & Students Development) Faculty of Applied and Creative Arts (FACA) along with the assessment tool (questions), after respective questions were approved by the researcher's supervisor. Students from animation program were invited into the Faculty of Animation lab after the approval of their lecturer and divided into two groups. The interviews took place in two days in a row.

Each individual from both groups was interviewed separately preserving students' confidentiality and after giving their consent. The researcher sought students' consent to be interviewed. Four students did not consent to participate. Students were interviewed during their final year project during Second Semester September 2018 in person by the researcher himself. The duration of each interview was approximately 12 minutes. It should be noted that conducting the interviews faced several limitations, with the most important one being the language barrier (the interview was conducted in English, not the native language of the participants). In addition, no variability in the level of working experience was identified among students, so respective views and perceptions on employability criteria may be biased.

As regards employees, a request of permission to interview employees of the animation industry in Malaysia was received from both the Dean and Deputy Dean (Undergraduate & Students Development) Faculty of Applied and Creative Arts (FACA)

along with the assessment tool (questions), after the respective questions were approved by the researcher's supervisor. Industry employees were asked for their consent to participate. After giving their consent a meeting was arranged at a specific time that fitted their schedules. Industry employees were too busy and their schedule was too tight accordingly. The researcher contacted the employees via email.

The interviews conducted in the company's location, and each individual was interviewed separately preserving their confidentiality and after giving their consent. The researcher sought employees' consent to be interviewed, and six individuals did not consent to participate. Employees were interviewed in November 2018 by the researcher himself, and arranging the meeting with the employees took two months. Finally, the interviews were arranged and took place within three working days. The duration of each interview was approximately 18 minutes. As in the students' case, the language barrier was the most important limitation of data collection, along with employees' very busy schedule, making them pretty stressed or hard to find.

5.6 Data Analysis

Data analysis in this study was performed via thematic analysis, that is to say this analytical process of identifying patterns of common themes among the qualitative (interview) data. Thematic analysis is an easy-to-use method that is widely used in qualitative research. It is considered particularly important for researchers, as it provides key skills that are also useful for conducting more specialized qualitative analysis approaches (Clarke et al., 2015).

In particular, it is a method of identifying, describing, reporting and "thematizing" repetitive semantic patterns, i.e., "topics" that arise from research data, and is a key tool for all researchers involved in qualitative research (Braun & Clark, 2006).

One of the advantages of this analytical process is that it is characterized by “theoretical freedom” or “flexibility”, as its choice as a method of analysis does not in itself presuppose the commitment of researchers to specific ontological or epistemological positions, as is the case with other qualitative analyses (“for example.” interpretive phenomenological analysis is bound to a phenomenological orientation) (Braun & Clarke, 2006). There are different approaches to thematic analysis and, as has been pointed out by many scholars, this particular analysis, although widely used, is not well defined (Willig, 2008).

Some researchers point out that the issues identified in the thematic analysis may relate to a) an obvious level that focuses on the explicit or superficial meaning of the data, or b) a latent and more interpretive level that focuses on latent meanings and presupposes a fuller understanding of the researcher as regards participants’ views (Clarke et al., 2015). In addition, a) the topics may arise from the text and be based on data (inductive approach), or b) be based on a priori features of interest to researchers (productive approach) or even c) come from a combination of inductive and productive analysis (Fereday & Muir-Cochrane, 2006).

Braun and Clarke (2006) propose six specific steps for conducting thematic analysis, which, however, do not require a linear course. They concern a process of movement, reset, or circularity, which is characterized by systematicity but Also by flexibility and is interested with other processes in the context of research design. These steps include the following: 1) Familiarity with the data, 2) Coding, 3) Search for common topics, 4) Review of topics, 5) Definition and naming of topics, and 6) Data report writing of findings.

In addition, it should be noted that thematic analysis can be conducted with the use

of specialized software, which are considered very useful for qualitative research. According to Robson (2014), the basic principles of qualitative research data analysis programs include the following: a) data entry and storage of data, b) coding, c) memoing and annotating, d) data linking, e) search and retrieval of data, f) data visualization, g) team analyzing and work, h) theory building and hypothesis testing.

Thematic analysis in this research was conducted with the use of the program NVivo, a product of Qualitative Research Solutions (QSR) International. The main features of NVivo are: organization and management of data, coding, search and retrieve of data, visualization of the findings of the analysis through schematic representations, and the preparation of reports that present in a coherent and empirically grounded way the theoretical categories and hypotheses that emerged from the analysis of the data.

According to Bazeley and Jackson (2013), NVivo is characterized by significant advantages when conducting qualitative research via thematic analysis. The first advantage is the creation of a “workspace” where all the research data are entered and stored, thus somehow arranging the large volume of data. The second advantage is the ability that allows the researcher, within the program, to record and save in text format (in hierarchical folders) the audio and video data he has collected. In this stored data, it makes easier both the systematic coding, with the possibility of alternative ways,

Following Braun and Clarke (2006) methodological process of thematic analysis, data analysis in this study was conducted according to the research questions, leading to two broader categories of analysis: (1) students’ and (2) employees’ perceptions. Accordingly, for each of the aforementioned categories, the common themes that emerged from the data with the use of NVivo are presented in the following Tables 5.5 and 5.6.

Table 5.5: Themes identified for students “perceptions”

Themes	Including	Examples
Demographics	Age Academic background Working experience	23 years old BA in animation Graphic design
Employability skills	Technical skills Creative skills Soft-generic skills	Software knowledge Producing new ideas Flexibility
Portfolio building	Presentation of skills	Combination of creative and technical skills
	Employability	Enhancement of chances for getting employed
Internships	Acquisition of skills Challenges faced	Technical skills Tight deadlines

Table 5.6: Themes identified for employees “perceptions”

Themes	Including	Examples
Demographics	Age Academic background Working experience	44 years old BA in animation Film and animation industry
Employability skills	Technical/creative skills Soft-generic skills	Computer graphics Teamworking
Portfolio building	Importance Presentation of skills	Higher chances of getting employees Showing art skills altogether
Challenges and goals	Challenges Goals	Hard working hours Having a clear career pathway
Internships	Importance Challenges faced	Acquisition of skills Lack of skills of interns

5.7 Quantitative Research Methodology

In order to investigate the impact of the covid-19 pandemic on a series of employability issues in the animation industry, small-scaled quantitative research was conducted with the use of a questionnaire (survey). Quantitative research is this type of research that uses numerical and observable data in order to test for relationships among variables and examine phenomena by applying statistical and computational techniques (Walliman, 2010). The purpose of quantitative analysis is to discover the causes of the change of social phenomena, through objective measurement and numerical analysis.

In this type of research, a deductive reasoning is used, i.e., the researcher starts with an already existing theory, which is confirmed or rejected.

The aim therefore is that the corresponding analysis will lead to generalization and empirically ground theories, through research questions study. Theory in empirical research means applying the criterion of scientific logic, that is, what we see and not what we should see. It is based on numerical data or characteristics of cases or subjects that show the connection between social reality and theory.

This research type was selected given its significant advantages, such as allowing for the collection of data from wider populations, collecting information quickly and without significant costs, as well using reliable data in order to draw respective conclusions. Among the different subtypes of quantitative research, this study performs a survey, that is to say a methodology based on sampling of individual units from a given population with the use of a questionnaire for data collection purposes (Singh, 2006). According to de Vaus (2002), the data used must be objective, that is to say without prejudice. Of course, achieving scientific objectivity is an idea rather than a reality, as in many cases the researcher cannot ensure his own personal objectivity, based on the topic to

be investigated and the relevant research questions.

The survey was conducted online, as participants were asked to complete the questionnaire via Google forms. The sampling strategy adopted in order to perform this survey was the snowballing sampling, as the link was sent via e-mails or published in relevant social media groups, by encouraging participants to distribute it to other employees in the animation industry. The total sample of this research comprised 223 employees in the animation industry (N=223) from various countries. As previously mentioned, the research tool was a closed-ended questionnaire, involving two parts.

The first part includes eight demographic questions (age, gender, marital status, education, country, employment, working experience, job position), and the second part includes ten questions assessing employees' views on several issues regarding employability in the animation industry during the covid-19 pandemic. The answering scale in these ten questions was a 5-point Likert scale (Strongly agree, Agree, Neutral, Disagree, Strongly Disagree). Data derived by the questionnaire were statistically processed with the use of the statistical package SPSS 20.0.

In order to avoid any ethical conflicts and controversies, this research complies with all ethical principles required when conducting a survey. In particular, all survey participants were informed about the research purposes before agreeing to participate (informed consent), as well as about confidentiality of their personal data or other sensitive information. In addition, all answers were kept anonymous and data derived by questionnaires were used only for research and scientific purposes. It is clarified that the only obligation of the participants in the research is the completion of the research tool, after their informed consent for the use of their answers. Finally, the anonymity of the respondents should be taken for granted, while at the same time, it is clarified that all

electronic files, that include answers were kept under the responsibility of the researcher, of course, in order to exclude the possibility of access to third parties. It should also be mentioned that ethical approval was sought by the University.

CHAPTER 6

EMPIRICAL FINDINGS

6.1 Students' Perceptions

6.1.1 Views on Employability Skills

6.1.1.a *Technical Skills*

Employability skills in the creative industries have been a topic of research interest, although available empirical evidence as regards the animation sector is scarce. Therefore, those skill sets emerged as a thematic category in this qualitative study, so as to identify skills and competencies viewed as important on behalf of future job candidates in this industry. According to student's perceptions, three major skill sets were identified in order to be employed in the animation industry, "for example." technical, creative and social-soft ones, although it seems that all the aforementioned categories usually overlap. As for technical skills, referring to the abilities and knowledge needed to perform specific tasks including knowledge of programming languages or/and software, the following common themes were identified:

1. Motion graphics
2. Animation development
3. Flowcharts management
4. Scene by scene shots
5. Storyboarding
6. After effects

7. File management and arrangement
8. Photography setup
9. 2D animation skills
10. Flash animation
11. Photo shopping
12. Drawing
13. 3D animation
14. Modelling
15. Texturing
16. Project management
17. Video editing
18. Design
19. Printing
20. Software knowledge
21. Illustration
22. Printing shirts
23. Character designing
24. 3D printing and mapping
25. Postproduction management
26. Character lippping
27. Online content distribution

As for the specific software knowledge required in the animation industry according to student's views, this includes the following programs and packages:

- i. Maya
- ii. Blender
- iii. Photoshop
- iv. Clip studio paint
- v. Aftereffects
- vi. Illustrator
- vii. Scripta
- viii. Live 2D and 3D software
- ix. Flash animate cc
- x. Adobe Packaging
- xi. Toon boom
- xii. Premier pro

The answers provided by students are representative of the wide variety of technical skills required in the animation industry. For example, **S1:** a student aged 23 years old with an expertise in design technology and concept arts pointed out that *“for 2D animators, (employers) are looking for people willing to animate frame by frame, while for 3D ones, they are looking for people who are not only able to model but also are very professional in rigging”*. Another student **S2:** with a degree in applied arts mentioned the importance of being highly-skilled in aftereffects, and another one **S3:** being in an internship for 2.5 months focused on the differences between 2D and 3D animators, commenting that *“in 2D you have to know to draw in flash animate cc and Photoshop,*

while in 3D you have to know how to use Maya and Blender, while managing the whole process of making modeling and texturing”.

S4: A 26-year old student with an expertise in animation, comics and graphic design also stressed out the significance of being technically qualified in different software and programming, stating that the most important technical skills in this industry include “*the basics for Adobe package, Premium Pro, Blender, Maya, Flash and Toonboom*”, and another one, **S5:** with a bachelor in animation revealed that being a “*master*” in illustrations and aftereffect software is of major importance in order to be employed, along with other tasks, such as 3D printing, 2D illustration and Photoshop. In addition, “*understanding the technical principles of animation*” while being an expert in animation-related software is highlighted as an important skill set by a newly employed student through an internship program. Lastly, **S7:** a 23-year-old student with an expertise in drawing and a bachelor in animation pointed out that adapting your technical skills according to the employer’s needs and requirements is highly valued in the industry, verifying the overlap between technical and softer skills, as discussed in the next sections.

6.1.1.b Creative Skills

The second set of skills identified by students participating in this study as regards their employability potential in the animation industry includes creative skills, that is to say the ability of creating fresh ideas and novel forms of art along with innovative content, without ignoring relevant cognitive competencies. All students participated in this study acknowledged the importance of being creative so as to get employed in the animation industry, although different views on creativity and its practical application in the workplace were expressed.

For example, **S8:** a 23-year-old student with an expertise in design technology and concept arts pointed out that being creative in the animation industry means having “*the ability of producing new drawing styles and models while trying to reach the final products*”, as well as that for concept arts, one “*should have a good foundation of referencing and building up new ideas*”. **S6:** A student of a similar age with a bachelor in applied arts and with an experience of 2.5 months in an internship program focused on relational aspects of creativity, highlighting the need of being creative while cooperating with the art director and the client. In particular, he stated that when being creative, “*you have to understand the specific guidelines of the art director, convert words into visual content and then take feedback*” in the back-and-forth process.

S1: A student with a bachelor in design technology described creativity as a cognitive process, in which someone “*has to create something active with his mind*”, while another study participant **S3:** of 26 years of age with an expertise in animation, comics and graphic design, stated that creativity in the animation industry means mainly being able to produce new messages and innovative ideas according to a specific storyboard. As such, creativity emerges as a complex and multidimensional skill which is expressed in many domain-specific and generic areas.

In addition, **S4:** a student of a three-month experience in an internship program and a bachelor in animation provided another description of creative skills, pointing out that “*creativity means thinking out of the box*”, thus, producing novel content with an innovative view that differs from the current status quo of animation creation. By adopting a similar point of view, a recently employed student via internship concluded that being creative in the animation industry means Producing fresh ideas that are relevant to the respective needs of the market as well as the needs of the creative team of the studio.

Imagination is another important aspect of creativity in the animation industry, as specifically mentioned by S5: another 24-year-old student with an expertise in 2D animation, as *“being creative means having the ability of imagining new characters and storylines that match each other”*. Lastly, creative skills in the industry frequently overlap with technical ones, as pointed out by another study participant with a drawing expertise. In particular, having the ability of being creative in the animation industry means, among others, being able to use effectively the relevant software.

Overall, creative skills identified so as to be employed in the animation industry, according to this study participants’ views, refer to different aspects of creativity, including the following themes:

1. Ability of producing new ideas
2. Ability of generating innovative content
3. Being creative while cooperating with others
4. Converting guidelines to novel forms of art
5. Having an active mind
6. Thinking out of the box
7. Producing new messages
8. Imagination
9. Combining creativity with technical skills

6.1.1.c Soft-generic Skills

The last set of skills identified in this study, according to students’ views, refers to more generic and soft skills that are considered of major importance in order to be employed in the animation industry. In particular, these soft skills include the following:

1. Understanding the needs of the art director and the market
2. Taking and providing feedback effectively
3. Being flexible
4. Having the right attitude towards the work
5. Managing own career
6. Communicate with others effectively
7. Sharing ideas
8. Team working
9. Time management
10. Being adaptive
11. Adopting leading roles when needed

According to students' views, soft skills are of major importance in this industry, referring to a series of interpersonal and personal competencies, social abilities, modes of working, adaptability and other transferrable skills. Under this prism, the creative worker in animation should not only combine technical and creative skills but also possess softer ones that are not domain-specific.

For example, a **S3**: student with a bachelor degree in design technology, with an expertise in design technology pointed out that being able to manage the whole process of producing a final animated product is highly valued by employers, requiring a Generic positive attitude. Accordingly, "*being creative while being able to choose among different solutions and think effectively*" is very important. Another student with a 2.5 months experience through an internship program highlighted the significance of communicating effectively with supervisors and other co-workers, while being able to receive feedback effectively, as it is very important to "*understand your art director and*

take feedback again back and forth”.

S2: An expert in motion graphics, photography, animation and video post- production expressed similar ideas, by pointing out that taking and providing feedback by colleagues and especially the art director is critical for achieving a paid job in the industry, as this is *“the only way of getting experience”*. Moreover, managing time, being able to meet very tight deadlines and *“focusing in the quality of your work”* is also very important according to same student’s views, while *“managing yourself in the industry”*, *“knowing the exact requirements of your work”* and *“understanding people around you”* are also highly valued by employers, as stated by another student with an expertise in comics and graphic design, and a bachelor degree in animation and marketing.

Communication and interpersonal skills emerged as equally significant soft skills in the animation industry, as supported by present findings. In particular, *“communicating with others and sharing ideas”* are identified as an important set skill of the creative worker in this industry, as pointed out by the same student. Another 24- years-old participant revealed that *“communicating effectively is crucial for being able to show your work”*, while another one **S8:** with a bachelor in animation stated that *“team working is the most important skill in order to be employed”*, along with time management and communication.

S5: A 24-years-old student being under an internship program for the last three months pointed out that taking up leading roles in a working team may be crucial for being successful in the animation industry, such as *“supervising a postproduction team”*.

According to the same insightful opinion, significant soft skills also include *“problem-solving”* and *“imagination”*. Adaptability also emerged as a highly valued soft skill, as stated by a student with an expertise in drawing, who declared that *“you need to*

adapt to a studio's work and processes". Lastly, being flexible and "*understanding the needs of the clients*" are generic skills of similar importance, while possessing the right attitude towards the work is another skill that respective job candidates should possess.

6.1.1.d Conclusions on Employability Skills

Overall, this study identified three major skill sets, "For Example," creative, technical and social soft ones. All study participants acknowledged the importance of creative skills in order to be employed and pursue a career in the animation industry, with such skills being related to the creation of fresh ideas, innovative works, new movements and novel forms of art, such as creating art scenes. In accordance, technical skills were also mentioned by all students as of major importance for professional development and advancement in the industry, referring to a wide set of abilities and well- established knowledge required to perform tasks such as language programming and software. In particular, technical skills identified included motion graphics, animation development, flowcharts and scene by scene shots creation, storyboards and aftereffects development, drawing, 2D animating and 3D printing and mapping, modelling, texturing and project management.

In addition, major technical skills also mentioned by participants involved video editing, design and printing, software experience shortcuts and illustration, shirts printing, character building and design, postproduction management, as well as character lipping and online distribution. It seems, thus, that employability skills in the animation industry, as perceived by students, mostly relate to the technical aspects of work, although generic creative skills should not be underestimated. In fact, it is quite difficult to distinguish between mere creative and technical skills, as they usually overlap. For example, being able to create novel forms of art scenes requires substantial technical

knowledge for character building and software handling.

The importance of technical skills for being suitable for paid job positions was further verified by students' views on software knowledge, i.e. knowledge related to the programs and other operating information used by a computer. All study participants spoken out about the significance of possessing deep and wide knowledge of current software used in the animation industry, with major programs including Maya, Blender, Photoshop, Clipstudio paint, aftereffects, Illustrator, Scripta, Animator, Live 2D and 3D, flash animate, Adobe package, Flash, Toonboom, Primer pro and Unity. Thus, it seems that specialist work experience related to advanced technical skills and specific software qualifications constitutes an important skill set for being considered as a highly-skilled employee in the animation industry.

On the other hand, specific technical competences seem not to be enough in order to pursue a career in the industry, as most study participants asserted that soft-social skills are also needed. Such skills, being related to competences facilitating interaction with others and social roles, have been acknowledged as essential features in the creative industries, including animation, and are of growing demand by employers. Such soft skills identified by study participants included understanding the needs of the art director and being able to provide and take relevant feedback, being flexible and having self-control. In addition, communication skills and sharing ideas, while being able to operate in working teams were also pinpointed, as well as managing working time effectively, being adaptive and open-minded. Furthermore, leading interdisciplinary teams was also asserted as significant skills for supporting career progression in the animation industry.

6.1.2 Views on Employability Skills Acquisition

6.1.2.a Portfolio Building

It has been widely suggested that portfolio building is a crucial component of pursuing a career in the creative sector, leading to advanced professional opportunities and well-paid jobs. Besides, a portfolio is now considered as an important means for proving to employers someone's skills, knowledge, competencies and previous experience. As such, students participating in this study were asked to express their views on how their portfolio enhance their chances of getting employed, as well on how their creative, technical and other skills are presented in their portfolio. Indeed, according to all students' perceptions, it was found that portfolio building is highly significant for increasing their employability potential. In addition, it was demonstrated that portfolio building is a complex process that should be relative to the job position pursued, in order to increase employability chances.

For example, a **S7:** student being in an internship program for 2.5 months with an expertise in design technology, animation and concept arts, stated that *"the chances (of being employed) are better if you build your portfolio in a way to reach the job you are looking for"*, while providing a relative example (applying for an internship on 3D animation with a portfolio with 3D assets, models and texturing examples, while applying for a 2D job position with concept art, characters and frames). According to same student's perspective, *"different sets of portfolios should be created for different companies one applies to"*.

In addition, **S4:** a student being under an internship scheme for the same period time with a bachelor in applied arts pointed out that the portfolio is *"the first thing employers pay attention to"*, although the attitude towards the job should not be ignored, because *"if you have a very good portfolio and you are arrogant, they will fire you"*. Likewise, a

portfolio should encompass the basic features of someone's work, as *"you should not put everything inside because this will ruin your chances of getting employed"*.

S2: Another student of 22 years of age with an expertise in motion graphics, animation, photography and video post-production verified that *"a portfolio enhance the chance of getting employed significantly"* and *"needs to be always presented to the head designer"*, while a 26-years-old student with a bachelor in animation and a diploma in marketing, mentioned that a portfolio *"is very important because it can show the skills of the new employee"*. As such, if the head designer is able to detect some important skills required for the job done, then he will consider that *"there is potential here"*, thus, employability chances are higher. Therefore, it is obvious that portfolio building is a major component of someone's preparation while entering the job market in the animation industry.

S7: A study participant aged 24 years old with a degree and a major expertise in animation also declared that a portfolio increases employability chances, as someone *"can show his previous art work"*, while **S8:** another student being in an internship for the Last three months with an expertise in 2D animation and a bachelor in design technology animation, further verified this assumption. In addition, he mentioned that by adding his previous work and experience gained through internships in his portfolio, he has the potential of working as a freelancer. As such, it can be assumed that portfolio building is not only important for getting a paid job but also for pursuing a freelancing career, where working arrangements are characterized by individual risk and personal responsibility. This assumption is important when considering that full-time employment in the creative industries, including animation, has been partially replaced by portfolio working.

Overall, seven out eight students participated in this study agreed with the opinion that portfolio building is important for enhancing their employability potential and their chances of being employed after completing an internship. Only one student could not verify this assumption, stating that he is “*not so sure if his portfolio can get him to get a job*”, although it should be mentioned that this could be attributed to his limited working experience, as he has been under an internship program only for three weeks.

What is more, all answers provided in this thematic category further led to the conclusion that the portfolio is important for presenting someone’s work, previous experience and different set of skills. Indeed, it has been widely documented that job candidates in the creative industry should be able to prove their skills, knowledge and competencies through various formal means, including their portfolio. As such, a portfolio building throughout a creative worker career reflects his/her skillset and displays other entrepreneurial aspects, such a flexibility, adaptability and autonomy, as verified by present findings.

In particular, **S1:** a student being in an internship program for 2.5 months with an expertise in design technology, animation and concept arts, stated that a portfolio presents “*a mix of creative and technical skills, such as a software knowledge and a creative outcome in the same time*”, with this being “*the best way to present your portfolio*”. Another student **S2:** of 22 years of age with an expertise in motion graphics, animation, photography and video post-production, verified that the portfolio is a suitable means for presenting skills, competencies and previously gained experience, although this information should adequately present the truth, as “*during the working time, the employer will make sure that you have the appropriate technical skills by testing and observation*”.

S4: A 26-years-old student with a bachelor in animation and a diploma in marketing, mentioned that a portfolio “*presents the whole set of technical and creative skills someone has*”, while also being a means of “*explaining and showing your skills from your work and what you can do*”.

Furthermore, a portfolio presents a mix of creative and technical skills, for example “*ex character design and styles with creative scripts and storytelling*”. The remaining study participants further validated that portfolio building is very important for “*showing your own work*” and presenting “*all of your skills*” to your employer, thus, enhancing your employability chances. Once again, only one student stated that he is “*not sure*” how to present his skills and competencies through his portfolio, although his limited working experience is the main factor explaining such a perspective.

Overall, the main findings regarding portfolio building in the animation industry, by considering students’ views and perspectives, can be concluded in the following remarks:

- A. Portfolio building is very important for enhancing someone’s employability potential and increase chances of getting employed
- B. Portfolio building is a complex process that should take into account the needs and requirements by an employer
- C. A portfolio should be adequately aligned with the requirements of a job position while containing the necessary informational content
- D. A portfolio is an effective means for presenting someone’s own work, past experience and competencies
- E. Portfolio building not only leads to increased chances of getting employed but also to enhanced opportunities of pursuing a freelancing career in the animation industry by

flexible working arrangements

- F. A portfolio contains specific information reflecting a combination of creative and technical skills

6.1.2.b Internships

Internship are very common in the creative industries, including animation, constituting a significant pathway for acquiring and developing the required skillset through on-the-job training. In the same time, internships lead to advanced opportunities for better paid jobs, playing a crucial role for enhancing work readiness and employability skills. As such, students' views on internships constituted the last thematic category analyzed in this present research, putting emphasis on the technical and creative skills provided by these working arrangements, as well as on respective challenges faced throughout these programs.

As regards skills and competencies acquired via internships, these include the following:

1. Creative skills ("for example." creative lines, character building)
2. Technical skills (pre-production, software learning)
3. Soft skills ("for example." communication, cooperation, adaptability)
4. Market and industry knowledge ("for example." employers' requirements, clients)
5. Work experience ("for example." experience in technical tasks)

Indeed, **S3**: a student being in an internship program for 2.5 months with an expertise in design technology, animation and concept arts, stated that through his internship, he "*learned what the industry wants to see rather than what the university wants*", being able to develop his "*pre-production skills and creativity*" and acquire new knowledge about programs. **S5**: Another student with an expertise in animation and a bachelor degree in

applied arts mentioned that by participating in his internship program was able to “*see too many products and creative differences in the production house*”, while a study participant **S3:** of 22 years of age with an expertise in motion graphics, animation, photography and video post-production, argued that an internship is an invaluable experience, as through feedback he has the chance to get real industry and job knowledge. In particular, he mentioned that “*we already have the basics from the school, but we can get really faster and reach more realistic outcomes, while getting experience in tasks such as photography and video editing*”.

In addition, **S4:** a 26-year-old student being in an internship program for 2.5 months with an expertise in animation, comics and graphic design, and a bachelor in animation and marketing, pointed out that an internship provides a place for developing a mixed set of skills, including “*how to communicate with others and share ideas*”, “*learn from others in the field and how they manage their workflow*”, “*learn shortcuts and straight routes*”, as well as manage time for effectively, as “*the working time is really fast and you have to keep up*”. According to same student’s views, an internship is a chance of experiencing “*how the industry looks like, which is very different from the university*”.

Furthermore, **S7:** a student aged 24 years old with a degree and a major expertise in animation also declared that an internship provides several technical and creative skills.

For example, for technical skills he was able through his internship to learn “*a lot on aftereffects*”, and for creative ones, he was taught “*how to present a storyboard and ideas*”.

S2: Another study participant being in an internship program only for three weeks with an expertise and a bachelor in animation argued that an internship is a perfect chance for acquiring technical skills that someone is not able to acquire at a university level, such as “*how to use Photoshop and manage illustration software*”. This assumption was further

verified by **S5**: a 24-years-old student with a bachelor in design technology animation, by stating that through his internship, he *“learned how to animate and mostly use what we learned in school”*. Lastly, **S8**: a study participant with an expertise in drawing and a bachelor degree in animation argued that *“we cannot learn so much in school and (through the internship) we are able to explore ourselves, and learn how to adapt to the work, a company’s way and its processes”*.

Although internships constitute a great opportunity for acquiring skills, market knowledge and industry experience, they also represent a challenging working arrangement, given also students limited working experience. As such, present findings revealed a set of different challenges faced by students during their internships, including the following:

1. Skills shortages, especially as regards technical tasks
2. Long working hours
3. Intense criticism and constant feedback
4. Tight deadlines
5. Difficulties in communication
6. Short duration of internship
7. Lack of personal equipment
8. Advanced tools to work with coupled with limited relevant experience
9. Understanding clients’ needs

Indeed, **S1**: a student being in an internship program for 2.5 months with an expertise in design technology, animation and concept arts, mentioned that most students under internship programs have not acquired the right set of skills during their academic path, *“unless they have developed them by their own”*. As such, skills shortages emerge as an

important challenge in order to keep up with employers' requirements. On the other hand, *"an internship is a win-win situation, as they help us and we help them"* and *"pens doors and chances"*.

S2: Another student with an expertise in animation and a bachelor degree in applied arts mentioned that receiving feedback during internships is quite challenging, as students *"receive a lot of criticism and are asked to fix constantly their work and redo"*. In the same time, long working hours is another important challenge, as they *"work a lot of late hours"*, while *"being constantly creative is not always easy, you need to search and apply things in your work all the time"*.

In addition, **S3:** a study participant of 22 years of age with an expertise in motion graphics, animation, photography and video post-production, and a bachelor in design technology, pointed out that *"deadlines are very tight"*, while in the same time someone has to *"focus always on the quality of the work"*. **S4:** Another 26 years old student being in an internship program for 2.5 months with an expertise in animation, comics and graphic design, and a bachelor in animation and marketing, stated that *"two months (of internship) is a very short time"* and *"communication is very difficult"*. As such, internships' duration emerges as an important challenge of these working arrangements, as it seems that it is not always adequate for providing the right place to develop effectively domain-specific skills. On the other hand, communication and constant feedback also pose obstacles to students pursuing a career in the animation industry.

What is more, **S7:** a student aged 24 years old with a degree and a major expertise in animation further verified that lack of appropriate skills is a major challenge they face, especially as regards *"the production of art work"*, while in the same time, *"personal equipment"* ("for example," laptop software and programs) also pose relevant obstacles. In

addition, **S8**: a student being in an internship program for three months with an expertise and a bachelor degree in animation pointed out that he faces significant challenges in getting the right creative and technical skills, mainly due to “*lack of ideas and ways of connecting them to work*”, as well as high demands as regards the use of “*new tools to work with*”. Lastly, **S1**: a student with an expertise in 2D animation being in an internship for three months, stated that it is challenging to “*understand the clients’ needs and redo your work until they are satisfied*”.

6.1.2.c Conclusions on Portfolio Building and Internships

Overall, present findings verify the importance of internship programs for being employed in the animation industry, as such programs provide for advanced job opportunities and portfolio building, which is a crucial component of proving the existence of skills, knowledge and competencies. Indeed, portfolio building constitutes a major means for someone’s presenting his own work and experience, thus, enhancing his employability potential both through paid jobs and freelancing. In addition, although internships enhance work readiness and employability skills, all study participants identified a wide range of challenges faced during such programs, which hinder their work effectiveness and performance. A major challenge mentioned by students was the lack of appropriate skills when entering the program, as well as late hours, very tight deadlines and lot of critics made by supervisors when assigned with specific projects not well prepared for.

Moreover, study participants revealed that their limited preparedness for participating in internship programs was also evident in the fact that they did not possess the appropriate equipment (“for example.” software on their own laptop), as well as they were not able to transform their novel ideas into meaningful work due to lack of specific

technical knowledge. Another challenge mentioned by students was related to their ineffective understanding of their clients’ or supervisors’ needs, which in conjunction with other communication problems made their internship experience quite challenging.

Lastly, concerns were also expressed as regards difficulties of adapting well in a new working environment, limited time of internship duration, barriers for articulating novel and creative ideas, work repeatability, and inability of understanding the metrics of quality when producing pieces of artwork. Consequently, it is clear that internship, although providing a chance of acquiring a real-world experience in the animation industry, is quite challenging and, thus, representative of the working environment of a latter on paid job.

6.2. Employers Perceptions

6.2.1 Views on Employability Skills

According to employers’ views, employability skills in the animation industry include two wider sets of skills, technical/creative and social-soft ones. As regards the first set of skills, those identified by study participants include the following:

1. Computer graphics
2. Production, preparation, post-production, and online distribution
3. Layout animation and blocking
4. 2D, 3D and 4D animation
5. Having an art identity
6. Drawing and cleanup skills
7. Character design and anatomy knowledge
8. Key frames’ production and acting fundamentals

9. Software knowledge
10. Animation principles application
11. Story-writing and concept art
12. Modelling and editing
13. Handling movements and gestures
14. Visual effects and aftereffects

For example, **E1**: an employee working as a mediator with an 8-year experience in the film and animation industry stated that “*the most important technical skills to be employed are related to computer graphics*”, while **E2**: another one with an expertise in architecture and background design argued that “*knowledge of current software*” is crucial for finding a well-paid job. In addition, **E3**: a 33-year-old employee working as ahead of an animation department and production supervisor pointed out that creativity is a skill that employers usually look for when hiring someone, which is further assessed via relative tests. Moreover, **E4**: a 30-year-old employee with a seven-year’s experience in animation argued that “*good use of software, such as maya, is crucial for getting employed in the industry, along with knowledge of the animation principles*”, while “*bringing a character to life and settle movement*” according to acting principles are also important.

E5: Another study participant working as an art director mentioned that joiners who possess 3D or 4D skills are highly valued by employers in the industry, although creativity is equally or more important, as “*lacking of new ideas is a major problem*”. As such, “*the more ideas you have the more far you can go*”. In the same vein, **E6**: an employee with 12 years’ experience stated that “*being specialized in certain technical skills*” and “*possessing a creative attitude*” are considered as significant employability skills, and **E7**: a 34-year-old head animator pointed out the importance of “*drawing skills*”

as skills that every animator should possess”, along with “animation sense”, meaning to “how things move during scenes”.

In addition, **E8**: an employee with a 10-years’ experience focused on the importance of “acting knowledge”, including knowing the fundamentals of anatomy and poses, as these skills are critical and even more important than technical ones, as “software is only the medium”. Lastly, **E9**: a 44-years-old employee With an expertise in drawing verified those previously mentioned assumptions by stating that “basic art work and especially animation fundamentals” are crucial for pursuing a paid job as a new joiner, while creativity is also important. Of course, all these skills seem to usually overlap with generic-soft ones, as “the more open-minded you are the more creative you can be”.

As regards the second set of skills, i.e., soft-generic ones, this study findings revealed that the most important ones include the following:

1. Team working
2. Time management and catching deadlines
3. Adaptability
4. Learning spirit
5. Ability to work effectively according to the industry needs
6. Leading and cooperating
7. Dealing effectively with cultural shocks
8. Being open-minded
9. Process management
10. Having the right attitude towards the work
11. Being easy to work with

12. Being willing to receive feedback
13. Meeting specific schedules and adapt to the workflow
14. Being willing to work extra hours without complaints

For example, **E1**: an employee working as a mediator with an 8-year experience in the animation industry stressed out the importance of *“the ability of working in groups”* and *“trying not to be behind schedules and meeting Deadlines”*, as *“the timeline is very crucial because the pipeline production is very strict”*. As such, the industry *“needs people who can go for an extra mile”*. **E2**: An employee with an expertise in architecture and a 15-years[“] experience in the animation industry also pointed out that time management is more than essential, as *“how fast (someone) can complete a task is always crucial for employers”*, given the budget constraints animation studios face nowadays. Thus, *“if you are doing the same job in faster time, no one can complain”*, while in the same time *“in the creating animation environment, it is very important to work effectively in teams and being able to share ideas with others”*.

Moreover, **E3**: the head of the animation department of a studio working as well as the production supervisor with an expertise in modelling for games further verified the importance of generic and soft skills in order to be employed in the animation industry, by mentioning that *“the first thing we look for is the person who is easy to work with and willing to do whatever his is asked for without any complaints”*, while also pointing out the importance of time management skills. In particular, *“burning out too quickly”* and not being able to meet deadlines are considered as significant barriers for pursuing a career in the industry, thus, *“(someone) has to keep pushing himself and always be patient”*. In the same time, *“working in teams, learning and being as smart as possible”* are also important generic skills, according to the same study participant’s views.

Furthermore, **E4:** a 30-years-old employee with a 7-years“ experience in the animation industry also stressed out the importance of time management skills, by noting that “*all depends on how you manage your time in order to meet deadlines*”, further mentioning that employees in the industry should be willing to work after working hours.

From **E5:** another’s employee perspective, who works as an art director for an animation studio, new joiners should “*concentrate on their final work*”, “*constantly improve their skills*”, and “*have courage, because it is a very competitive industry actually, and be open-minded*”. What is more, **E6:** a 12-years experienced employee pointed out that joiners should not be scared by “*confident enough*” in order to keep up with the massive working requirements of the industry, while technological and general adaptability is also important, as “*we are in the technology industry and we need to adapt everyday so as to follow changes*”.

Another insightful view also revealed the importance of generic skills in order to be employed in the animation industry. In particular, **E7:** a 34-years old employee working as a lead animator mentioned that “*rushing into deadlines*” is a crucial part of the work, while “*sometimes you really do much more than your formal tasks*”. According to his perception, “*a good attitude is always preferable than technical skills*”, as “*we have a lot of examples of creative and talented people with great skills who are too lazy*”, while causing problems to their workmates. **E8:** An employee with a 10-years“ experience in the industry further reported that besides being able “*to meet deadlines and manage your time effectively*”, in order to be employed in the animation industry someone has to “*be more creative, more on breaking some rules and make sure that has a strong critical thinking*”. Lastly, **E9:** a 44-years old drawing artist with a 20-years“ experience stressed out that a new joiner “*needs to have the spirit to learn and adapt to the real world of the industry*”. Understanding the workflow and the needs of the working team, leading and confronting

cultural shocks are also important generic skills to possess in order to pursue a career, as well as being “*open-minded and exposed to different arts and styles*”, so that someone can be fixable.

Soft skills	Definition	Example
1. Communication skills	oral or written that allow you to express yourself effectively in the work place	• clarity • confidence • respect • empathy • listening • verbal communication • non-verbal communication • written communication • constructive • feedback • friendliness
2. Teamwork	Operate well in a group setting in the workplace to quickly and effectively accomplish task	• conflict management • delegation • active listening • collaboration • cooperation • coordination • idea exchange • mediation • negotiating
3. adaptability / flexibility	Rolling and embracing with change	• curiosity • self-management • decision-making • calmness • optimism • open-mindedness • analysis • self-confidence • organization • self-motivation

4. Problem- solving	A blend of using analytical and creative thinking to find solutions	• analysis • lateral thinking • logical reasoning • initiative • persistence • observation • persuasion • negotiation • brainstorming • decision making
5. Creativity	A broad type of soft skills that can help you develop innovative solutions to problem solving	• Divergent thinking • inspiration • imagination • reframing • mind mapping • insight • innovation • experimenting • questioning
6. Work ethic	Proves your belief in the importance of work and its ability to strengthen your character	• integrity • responsibility • discipline • initiative • dependability • commitment • self-motivated • professionalism • teamwork • time-management
7. Interpersonal	These that you use near-constantly as you interact and communicate with co-workers and management	• empathy • humour • mentoring • networking • sensitivity • patience • tolerance • public speaking • positive reinforcement • diplomacy

8. Time management	Demonstrate your ability to work efficiently and productively by using your time wisely	• goal setting • prioritizing • self-starter • planning • decision making • focus • delegation • stress management • coping • organization
9. Leadership	Enables you to guide others while you fulfil the goals and mission of your organization	• empathy • selflessness • agility • listening • humility • cultural intelligence • authenticity • versatility • generosity • trust
10. Attention to details	Allows you to be both thorough and accurate in your work	• critical observation • listening • organization • scheduling • analysis • introspection • memory • acuity • recall • questioning

6.2.2 Conclusions on Employability Skills

Overall, all study participants identified two major set of skills required in order to be employed in the animation industry, “For Example”. technical/creative and social-soft skills. In particular, technical and creative skills seem to overlap, according to employers’ views, including computer graphics knowledge, production skills, online distribution of the art work, blocking, layout animation, frame by frame animation, 3D and 4D animation, cleanup artistic and drawing skills, character design, story writing, acting, modelling

editing, file management, and rigging. Animation character building related skills were stressed out by all employers as of major importance for pursuing a career in the animation industry (“For Example”. Character’s background, anatomy knowledge, smooth hand gestures, acting, bouncing balls, movements, layouts).

In addition, highly ranked skills by study participants included the formation of an own art identity, art preparation, postproduction skills, visual effects, editing, and competences of applying fundamental animation principles. Experience in gaming and advertising is also considered important for hiring a new employee in the industry, as well as being able to meet deadlines and timelines. Technical skills, especially as regards software knowledge, were acknowledged by the vast majority of study participants as critical when joining a new animation studio, with Maya being the most commonly cited software package for new joiners.

Besides creative and technical skills, soft/social skills were the second skill set identified by employers in order to have advanced opportunities of being employed in the animation industry. Highly ranked and commonly cited skills of this category included teamwork, adaptive skills, catching deadlines, understanding the team’s and leader’s way of working, being open-minded, time and process management being willing to do whatever is asked without complaints, coming up with new ideas, meeting schedules and understanding the working environment.

In addition, having a learning spirit and being able to adapt easily when considering cultural issues were also identified as important soft skills by the majority of employers, as well as having a positive attitude towards the work and colleagues. Willingness to work extra hours while realizing the seriousness of the industry was another soft skill acknowledged by participants, while being easy to work with is another competence valued

in the industry. Overall, a combination of technical, creative and generic-soft skills is required by all employers and considered when recruiting and selecting new job applicants, being asserted as preferable for supporting career progression in the animation industry.

Hard skills	Definition	Example
1. Computer technology	Basic grasp of computer technology	• Microsoft office suite • social media • analytics • pivot tables
2. Hard communication skills	Several way that your concrete strengths as a communicator can be demonstrated	• foreign language • digital communication • copywriting
3. Data analysis	The ability to analyze data and then use that information for the benefit of your company	• data mining • data presentation • resource management • data engineering • database management
4. Certification and licenses	Proving to potential employers that you possess certain sought after abilities	• learning management systems • data management systems • healthcare related licenses • certificates, awards, badges • industry -recognized credentials
5. Marketing	The ability to convince consumers to purchase a company's products or services	• (SEO) searching engine optimization • (SEM) searching engine marketing • marketing campaign management • Google analytics • (CMS) content management systems such as word press
6. Project management	Skills related to managing project	• agile methodologies, such as scrum • project management software, such as Trello and Zoho •
7. Design	Create a purposive solution	• user interface (UI) design • user experience (UX) • adobe creative suite (Photoshop, Indesign, etc) • digital product design software, such as Invision and Zeppelin

8. Cloud computing	A convenient data storage and management solution	• cloud architecture • storage and data management • networking communication • cloud middleware technologies • cloud applications, such as JSON, Rest, and RPC
9. Mobile and web development	Evolving technical solution	• software revision control systems • android development • IOS app development • web architecture and development framework • angular and node apps
10. Network structure and security	If the sensitive data is leaked or stolen due to faulty network security, it professionals who have the skills to protect data.	• encryption algorithms • authentication systems • risk assessment • cryptography • virtual and host-based firewalls

6.2.3 Views on Portfolio Importance

Portfolio building has been identified as vital component of employability in the creative industries, and as such, respective views on its importance were explored on behalf of employers. According to research findings, portfolio building is indeed a meaningful experience by new joiners, providing enhanced employability opportunities. For example, **E1:** An employee working as a mediator with an 8-year experience in the animation industry documented that the portfolio “*is actually very important*”, as it reflects someone’s “*creativity and his ability of creating new ideas for the company*”. What is more, a job candidate should “*show what he can do in a very art way*” while presenting his portfolio, for example by showing a session of his own video “*more like a movie trailer*”.

The importance of portfolio building was further supported by **E2:** An employee with an expertise in architecture and a 15-years “experience in the animation industry who pointed out that a good portfolio increases the chances of getting hired by “*showing art skills altogether*”, while **E3:** The head of the animation department of a studio working as well as the production supervisor with an expertise in modelling for games stressed out that

“the portfolio is basically the first thing we look before the interview so it is very important”. As regards the portfolio content, one should *“make sure that the portfolio is short and has all the best”*, just like a movie trailer, as employers *“want to see if (the artwork) is polished and finished”*. Additionally, an employer *“can see from the portfolio if (job candidates) have the right skills”*, and thus, the portfolio *“should be done* From another point of view, **E4**: a 30-years-old employee with a 7-years’ experience in the animation mentioned that *“the portfolio is very important as it gives the first impression”*, while *“showing how good you are”*. Similarly, **E5**: An employee working as an art director for an animation studio said that *“the portfolio can present skills and experience”* and as such, *“you can have a better chance in your career”*, and **E6**: A 12-years experienced employee argued that a portfolio enhances the chances of getting employed *“definitely”* although *“it should be more specific to the skills (job candidates) have”* taking into account that employers in the animation industry face significant challenges. *“in finding talent”*. A portfolio is very important for reflecting someone’s talent and creative potential.

E7: A 34-years old employee working as a lead animator for the last 13 years revealed that if someone has a good portfolio, the chances of getting employed *“are very high”* as it is very difficult for employers to know the full potential of a job candidate or an intern.

As such, portfolio building is invaluable for employers in order for them to *“evaluate if (candidates) are doing a good job, for example if they have storytelling skills”*. When a candidate sends a portfolio, employers are mostly looking into *“drawings, from which you can find people who do fine art”*, as they look for cartoonish style and other technical or creative skills (color senses, poses, background, proportion, facial expressions, unique style, knowledge of different styles). What is more, a portfolio may be more

important than a candidate's academic background, as it *“speaks louder than the certificate”*, and *“for this industry, the portfolio works better than the degree”*.

E8: An employee with a 10-years' experience in the industry further reported that *“usually the portfolio is a collection of the things that (someone) does the best from start to the end”*, while reflecting *“how far you can go”*, as in the animation industry all employees *are still learning and develop their skills*. Consequently, a good portfolio enhances the chances of getting employed, an assumption further supported by **E9:** A 44- years old drawing artist with a 20-years' experience, who also pointed out that *“companies here (Malaysia) love to have (job candidates) with diverse skills”*, although he advises that candidate should have a specialized portfolio presenting their technical or creative skills in the best possible way. He also stressed out that *“talent is everything”*, thus, employers are looking for new joiners who may not be much high-skilled but they have a good potential and *“want to develop themselves”*.

6.2.4 Conclusions on Portfolio Importance

Portfolio, “For Example”, the set of pieces of creative work intended to demonstrate a person's ability to a potential employer, is acknowledged as a crucial component for new joiners. In particular, study participants pointed out that when assessing a new applicant, they need to look the most fine he/she can do, the quality of work that he/she can bring to work. One important finding is that the portfolio is more valued than other typical qualifications (e.g., academic background) and is the first thing evaluated even before the interview is started.

A good portfolio needs to be short and representative of the applicant's knowledge, experience and skills (“for example.” like a movie trailer), including demonstrations of his/hers editing, coloring, character building, and polishing skills. Particular features of a

portfolio that are considered and assessed by an employer include the cartoonish style, drawings, facial expressions, a unique style, poses, the background, and the variety of animated characters. In addition, some study participants pointed out the need for a portfolio to be short and specialized, even though animation studios in Malaysia tend to prefer multi-skilled employees. All these characteristics can be easily evaluated by experienced employers, who consider that a good portfolio can significantly enhance the chance of getting employed. Overall, portfolio building is identified as of critical importance employability skill in the animation industry, where academic diplomas may have limited value in comparison to other industries or job positions.

6.2.5 Views on Employability Challenges Faced and Goals Pursued

Besides employability skills and their acquisition via portfolio building and internships, employees participated in this study revealed a diverse set of challenges faced within the animation industry both as a new joiner and as an experienced employee. These challenges include the following:

1. Hard working (long) hours
2. Catching strict deadlines
3. Multidimensional nature of projects
4. Strict budgets
5. Difficulties in training new joiners due to lack of skills
6. Managing people
7. Burning out due to long working hours
8. Gaps between universities' training and industry needs
9. Lack of new ideas

10. Finding talents
11. Constant technological adaptation
12. Career advancement problems
13. Time management issues

Indeed, all study participants mentioned one or more from the aforementioned challenges. For example, **E1:** A 31-years-old mediator with an 8- year working experience in the film and animation industry stressed out that there are significant challenges in developing the right set of technical and creative skills, due to strict deadlines as “*when you come to the industry, all you need is to finish the projects*”, “*it is very tough to catch with other employees*”, and “*you always have to push harder to meet the deadlines no matter what*”. According to the same employee, “*the timeline is very crucial due to the pipeline production*”, thus, “*we need people (employers) who can go for the extra mile*”.

E2: A 32-years-old employee with a 15-years“ experience in the animation industry particularly mentioned the challenges arising from bad self-management during career advancement, meaning that “*if you have the skills but you don’t have the management you will not „grow“, you will be stuck*”, being unable to get a managerial position. Accordingly, training of new joiners is also challenging on behalf of employers, as “*the budget is the most critical thing and you don’t want to spend more on somebody who does not have the skills*”, as this will be “*a wasting of money*”. In the same vein, “*many students (interns) have a lack of skills, a lack of knowledge, a lack of everything*”, while in the same time, animation production is a “*multi-tasking*” activity, adding further challenges for employees.

E3: A 33-years-old employee with a diploma in 3D Computer Graphics animation and a 10-years“ experience in the industry further verified the growing challenges of

attracting employees with the right skillset, taking also into account gaps between academic training and real industry or employers' needs. As the head of a studio department, this employee documented that *"the challenge for me was always getting the people to learn more skills and pick it up quickly, because the production has a timeline"*, thus, new joiners *"always suffer in the beginning because they have to push themselves all the time and develop the skills in order to meet the necessary requirements"*.

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Additionally, new employees “*get burnout very quickly and give up*”, while “*the industry is very different from study during college time*”, as in the first case “*the expectations are too high*”. **E4:** Another employee with a 7-years of experience also mentioned the challenges arising from the gaps between academia and industry, stating that “*from my experience, what we learned in the university is just a theory. And the working Experience is based on practice*” and application of skills in the real working context. Besides, working for long hours and mastering different skills are very difficult to achieve, as when you work in animation “*you don’t have a life*”.

E5: A film and art director with a 10-years’ experience revealed that “*(animation) is a very competitive industry and you have always to be open-minded and seek (for employability opportunities) everywhere*”, while getting the right technical and creative skills is difficult, “*as basically people follow the same idea again and again*”. What is more, **E6:** Another study participant with 12 years of experience also stressed out the challenges due to difficulties from getting the right and skillful employees, as “*finding the talent*” is not always ease and many employees “*who have the experience lack of talent*” and “*they are not „industry ready”, so sometimes we need to „import” from outside the country*”. Due to inefficiencies in the higher education system, other new joiners “*either they are not ready or scared and they are not confident enough*”, so “*they always need up-skilling and reskilling*”. According to the same employee’s views, technological adaptation is another challenge employers face, because “*technology changes every day and we need to follow*”.

Strict deadlines, long working hours and lack of skillful new employees were also identified as challenges by **E7:** Another study participant working as a lead animator and having a 13-years’ experience in the industry. In particular, he pointed out that “*rushing into deadlines and clients in the same time*” is very challenging, so managers try to divide

employees according to the type of the project. In the same time, *“the way (new joiners or trainees) are being taught by the university is wired”, “they lack of knowledge and guidance”, and “they don’t Even know the basics of animation principles “, so managers “consume a lot of production time to teach them”.*

In accordance, some trainees or employees, although they have great skills, *“are too lazy” or “have a bad attitude”.* Another challenging point mentioned by the same employee refers to the whole industry, as some countries such as India and Pakistan *“have a huge manpower and are economically cheaper than here (Malaysia)”*, so animation studios face intense competition, while some of them *“are converting into giving animation courses and teaching or training in order to survive in the market because they don’t have projects to work on”.*

Furthermore, **E8:** an employee with a 10-years“ experience in the animation industry documented that sometimes someone working in this industry *“may be stuck and empty from ideas”, so “you have to push yourself” all the time.* Lastly, **E9:** A 44- years-old employee with 20 years of experience in the industry mentioned the complexity of joined animation projects among studios, as *“different projects with different companies can make things really messy with each of them having a different way of thinking”, so “it is too hard to get the job done within the deadlines”.*

Besides that, many employees face significant difficulties while navigating themselves in the industry and pursuing a career, given that *“every different company gives a different experience and you need to have the learning attitude and courage”.* In that sense, new employees should *“learn the most they can and push themselves as far as they can go, because whatever they learn in the college is just a starter package”.*

According to same employee's perspective, *"it is really important to find your path"*, while freelancing is also an option, as *"going online and exposing your work to the people"* provides significant opportunities for recognition. Overall, it seems that pursuing a career in the animation industry is quite challenging both for new joiners and more experienced employees.

Another thematic category revealed by this study refers to the goals pursued by employees in the animation industry, although the available qualitative evidence was quite limited. Overall, goals pursued by employees include the following:

1. Having a clear career pathway
2. Matching skills with the respective job position and market requirements
3. Being flexible while navigating in the industry
4. Taking advantage of different career options
5. Pursuing working experience in different companies
6. Developing a learning attitude and open-minded mindset
7. Being constantly motivated

For example, **E9**: A 44-years-old employee with a 20-years" experience expressed an argument for developing the right skillset according to the specific job position or career someone pursues in the industry, as *"it depends on where you want to go and what is your target"*, while adopting a general learning attitude, as moving through different companies in the industry is quite common, providing for different working experiences.

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E8: A 10-year experiences employee stressed out the importance of being motivated, as *"motivation plays a significant role in pushing yourself forward"*, as well as for achieving professional goals within a certain job position according to employers" requirements, while **E1:** A mediator with 8 years of working experience mentioned the need of having confidence while pursuing personal goals in animation, as *"while you are in the industry, it's all about your passion no matter how hard it is to get it"*. **E3:** Another study participant pointed out the need of trying to get the most possible working experience by being flexible in terms of employability while an Employee with a major experience in animation mentioned the need to constantly develop *"your skills, even before entering the market"*.

6.2.6 Conclusions on Challenges and Goals

Overall, employers of the animation industry participated in this study stressed out the need to be goal-oriented in this industry in order to be successful and pursue a career. Depending on one's personal profile, an individual should early assess his/ hers dynamic, while being in the same time open-minded about the respective career choices available in the industry ("for example." art or technical director). Determination is another important self-competence that new joiners need to have in order to pursue their professional goals, while keeping in mind that „being on the move“, “for example.” Changing job positions and companies, is beneficial in terms of acquiring valuable experience. Indeed, the animation industry offers different employability options, given also the rising number of studios operating in the market, and as such, determined and flexible individuals with the right skillset are able to be successful and achieve their professional goals, while putting emphasis on constant skills“ development.

Lastly, all study participants revealed that being employed in the animation industry is challenging. Particular challenges identified include meeting strict schedules and deadlines, catching with other employees of different background, being involved in different projects, having the right management skills, being able to constantly come with new ideas, managing customers“ needs and complaints, and being adaptive to rapid technological changes. Due to long working hours, burnout is another challenge pointed out by experienced employers that new joiners may face while working in the animation industry. In addition, gaps between universities and the industry itself in terms of employers“ needs is an important Challenge that companies and particularly managers face, while finding and attracting talents seems to be also challenging, given the strict budgets.

6.2.7 Views on Internship Importance

Besides portfolio building, internships are also highly valued by employers in the animation industry, as they provide useful opportunities of getting in touch with the working reality of the industry and of developing the necessary skills, knowledge and competencies in order to get a fully paid job position.

According to this study participants' views, internships:

1. Provide significant opportunities for acquiring skills, knowledge and competencies
2. Provide for a real-world working context
3. Are a means for improving time management skills
4. Are experiences in which students are able to work in teams and develop their creativity
5. Are aligned to the industry and each company needs, providing an industry experience
6. Provide opportunities for fully paid job positions and career advancement
7. Are often limited in terms of time and cost provided by employers
8. Are characterized by several challenges due to graduates' lack of skills

For example, **E1:** A 31-years-old mediator with an 8-year working experience in the film and animation industry stressed out that internships provide interns with the adequate knowledge, although time constraints limit respective opportunities, as *“we need to teach and train them without spending too much time on their training or helping them so many times, so we need someone who loves the art work and knows what to do”*.

In addition, **E2:** A 32-years-old employee with a 15-years' experience in the animation industry particularly mentioned that internships add significant working

experiences and new opportunities for developing skills and competencies, such as time management, which is crucial for achieving high performance level in order to be valued by employers, given that *“when you go into an internship, you have a specific issue to manage, which is the time factor, and time is money”*. As such, during internships new joiners are able to work within real-world contexts, meet strict deadlines and acquire time management skills, which are considered crucial in the animation industry.

E3: A 33-years-old employees with a diploma in 3D Computer Graphics animation and a 10-years“ experience in the industry further verified the significant role of internships in providing an environment for developing working skills, although students should already have an “art sense”. What is more, employers often face some challenges during internships, as “fresh graduates of the new generation tend to choose what the want to work with and when they are assigned to a project they don’t like, they get burnout very quickly, they don’t push themselves and they give up”.

Another employee **E4:** With a 7-years of experience also mentioned that internships are invaluable experiences for graduates, given that *“the working experience is based on practice”*. Furthermore, **E5:** A film and art director with a 10- years“ experience also revealed that during internships, *“we teach them how to work with the team creatively”*, so graduates can improve their skills. According to his views, internships are very important for employers, as *“the purpose of the industry is to help the young generation, so we show them how it is in the real world And how the industry works and how to survive in the market”* Additionally, **E6:** Another study participant with 12 years of experience pointed out that employers in the animation industry *“provide a good environment for the students” during internships*, assigning them with tasks according to each department needs. Accordingly, internships *“provide full support for (developing) their skills according to the real industry practice and the production pipeline”*. As such,

“internees join the workflow and the production directly”. **E7:** Another study participant working as a lead animator and having a 13-years’ experience in the industry provided an example of how fresh graduates are able through internships to get advanced in a studio hierarchy, as they *“start training from the lowest position (as cleanup artists) and then depending on how good they are, they can be junior animators and so on”*. In fact, *“if a person really know how we work in animation and has really good skills, we can skip this stage and put him in the key animator position”*. Besides that, during internships students *“can learn several things, such as how to do key frames and character design”*.

Furthermore, **E8:** An employee with a 10-years’ experience in the animation industry documented that internship *“are very good for students, because they can learn what the real industry is all about”*. Some interns face many difficulties because *“they think it’s fun all the time, but when you have a project and you need to meet deadlines, it’s very hard and tough”*. Lastly, **E9:** A 44-years-old employee with 20 years of experience in the industry mentioned that employers, during internships, *“provide (students) the real world of animation industry experience, so they get more exposed”*, as well as those internships are basically aligned with each animation studio needs, given that employers *“let them (students) understand how we work in this studio, because every studio has a different technique and working system”*.

As such, it is obvious that internships are significantly differentiated in terms of their organizational features, a fact that has respective effects on the gained industry experience and the specific skills and competencies developed.

6.2.8 Conclusions on Internship Importance

Overall, study participants “views on internship supported its importance for acquiring and developing the necessary skills required in the animation industry, verifying that internships constitute an invaluable working experience. Given this study findings, internships provide for a real-world working environment where fresh graduated are able to enhance their employability skills, including creativity, time management and team working. In the same time, they are able to practice their previously acquired knowledge in a real setting, while coming in touch with respective difficulties and challenges faced by other employees, such as meeting deadlines and aligning their work to the production pipeline.

What is important to mention is that internship programs are significantly differentiated in terms of their organizational characteristics, given that interns’ positions are designed according to each studio or even department needs. That is to say that internships are just a working experience of an entry level, and future employees need to constantly practice their skills in other working settings as well. Furthermore, during internships, students are able to understand the organizational hierarchy of animation companies, while having in the same time advanced career opportunities for getting a fully paid job, provided that they can meet their employers’ expectations.

Lastly, it should be noted that internships are also characterized by some challenges on behalf of the employers, taking into account the gap between higher education and industry needs, leading to a shortage of skills of new joiners. Besides that, trainers are often limited in terms of time and cost, as animation studios have strict budgets assigned to such programs. As a consequence, they often lack the necessary time to pay attention to trainees’ skills shortages, meaning that the latter have to put great efforts in

order to get advanced in employability terms and reach a fully paid job. Despite that, the value of internships as a means of developing and acquiring the adequate employability skills in the animation industry should not be questioned, as also supported by empirical findings regarding students' views.

6.3 Quantitative Research Findings

Focusing on the demographic characteristics of the participants, initially it appears that 5.8% of them are aged 18 to 24 years, 41.7% are between 25 and 30 years, 26.5% between 30 and 35 years old, 21.5% between 35 and 40 years old, 4.0% from 40 to 45 years old and 0.4% over 45 and up to 50 years old.

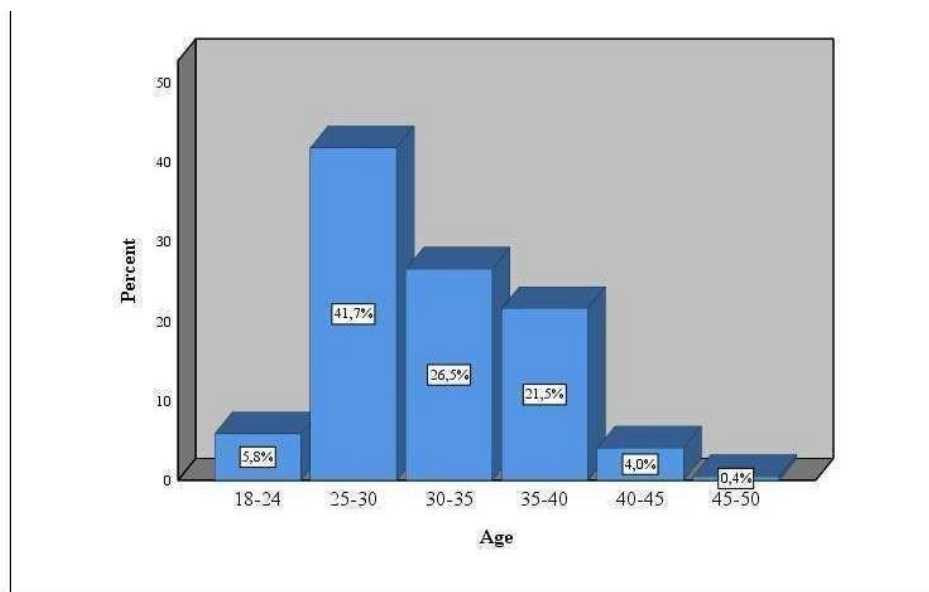


Figure 6.1: Respondent's age

Regarding the gender of the respondents, it appears that most of them (70.9%) are men, with 43.5% of the sample consisting of married, 32.7% of singles, 19.3% of divorced and 4.5% of persons of other marital status.

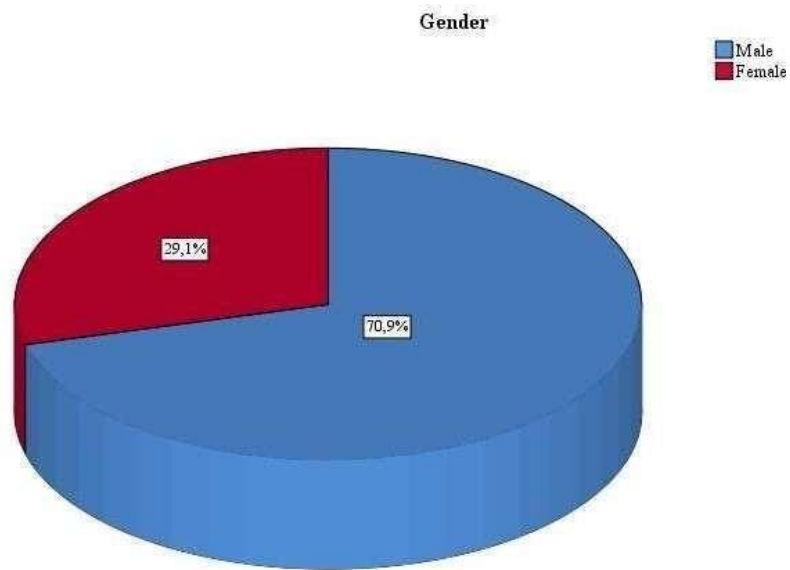


Figure 6.2: Respondent's gender

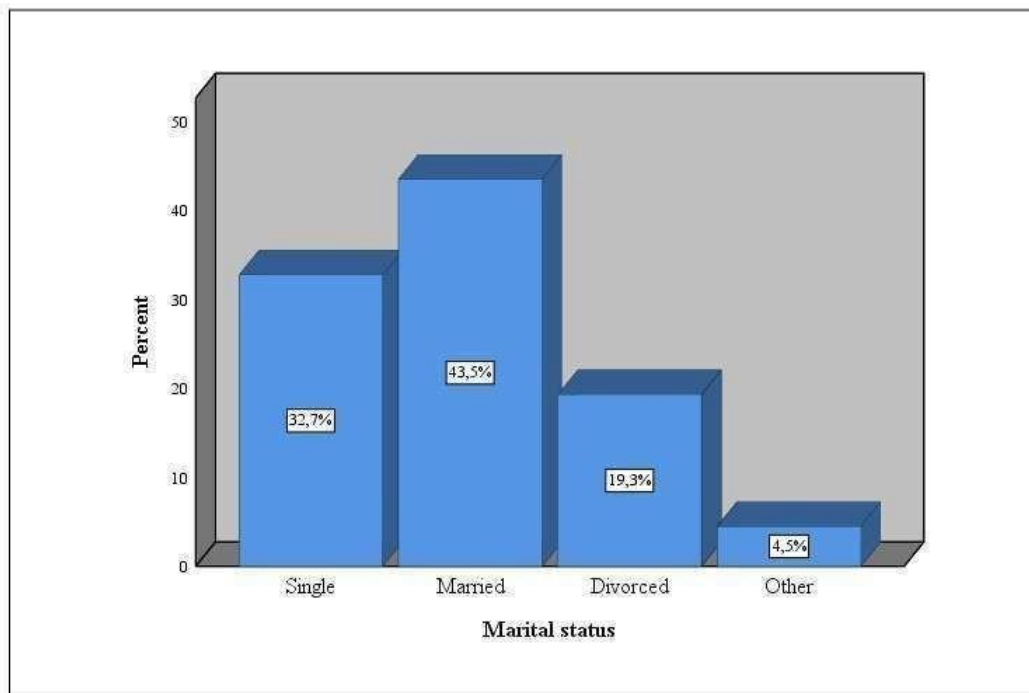


Figure 6.3: Respondent's marital status

In addition, 2.7% of respondents are high school graduates, 29.1% hold a diploma, 35.4% are college graduates, 32.2% hold a bachelor's degree and 0.4% postgraduate degree.

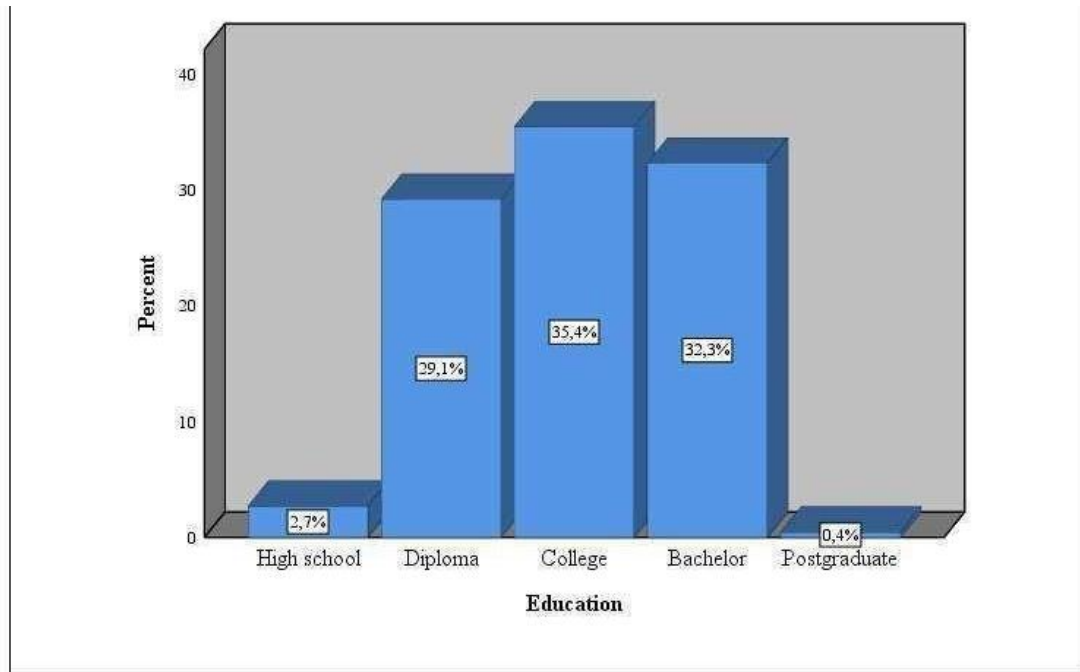


Figure 6.4: Respondent's education

Finally, by completing the citation of the demographic characteristics of the study sample, it results that 7.6% of the respondents have work experience of up to three years, 48.0% of three to five years and 44.4% more than three years.

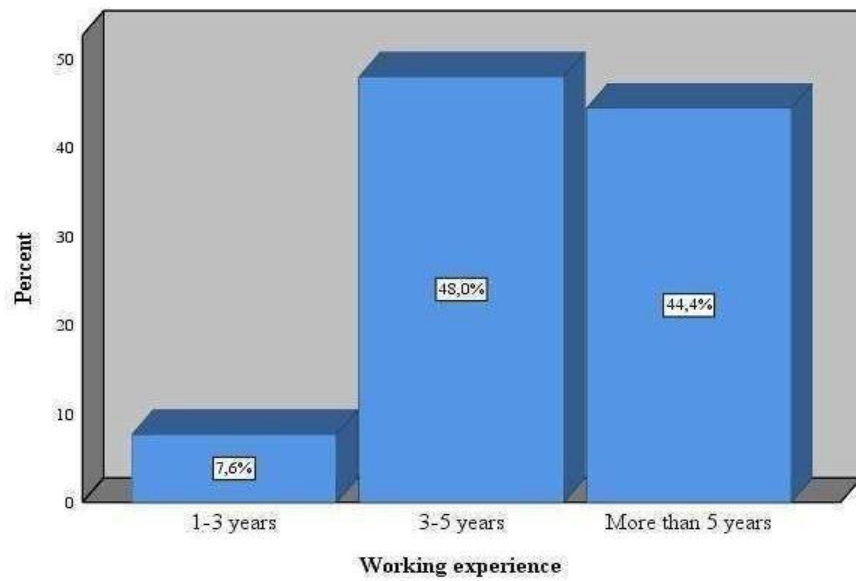


Figure 6.5: Respondent's working experience

As regards the COVID-19 on the employees and on the industry, initially it appears that during the pandemic the communication skills with their team of the 72.2% of the respondents increased, while are decreased for to 8.5% and remain the same for to 19.3%

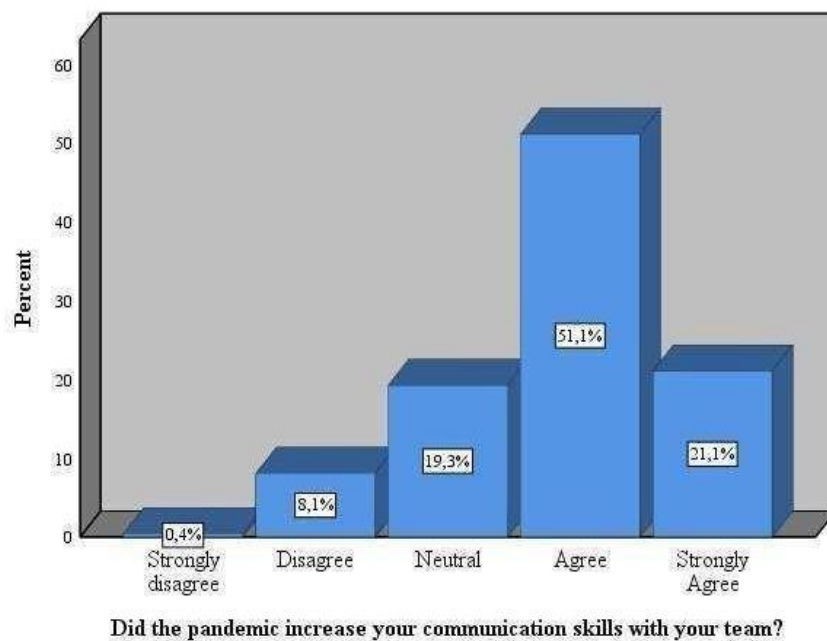


Figure 6.6: Communication skills during pandemic

Also, quite high id the level of agreement of the respondents on whether the company that they work for, gave them the opportunity to work remotely is positive for the 38.6%, neutral for the 17.9%, and negative for the 13.4%.

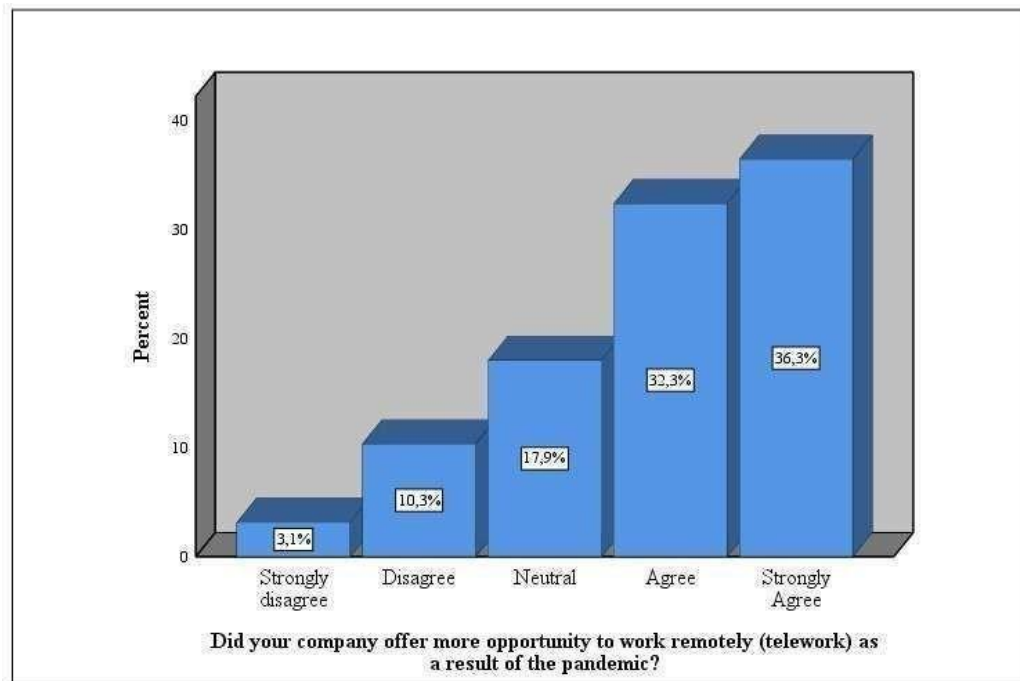


Figure 6.7: Telework opportunities during pandemic

In addition, 4.9% of the individuals strongly disagree on whether their company hired new employees during the pandemic, 19.3% disagree, to 19.7% are neutral, 33.6% agree and 22.4% strongly agree.

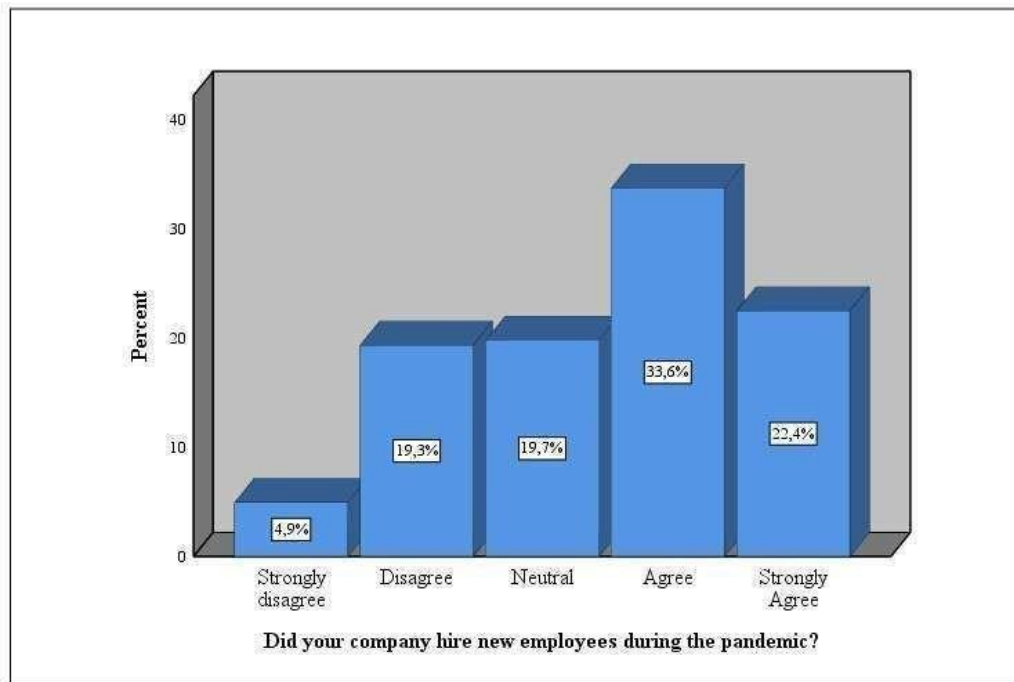


Figure 6.8: New hires during pandemic

Moreover, 26.0% of the respondents disagree on a relative or absolute level that their company layoff or discharged employees during the pandemic, while the 24.7% is neutral and the 49.3% agrees in a relative or absolute degree.

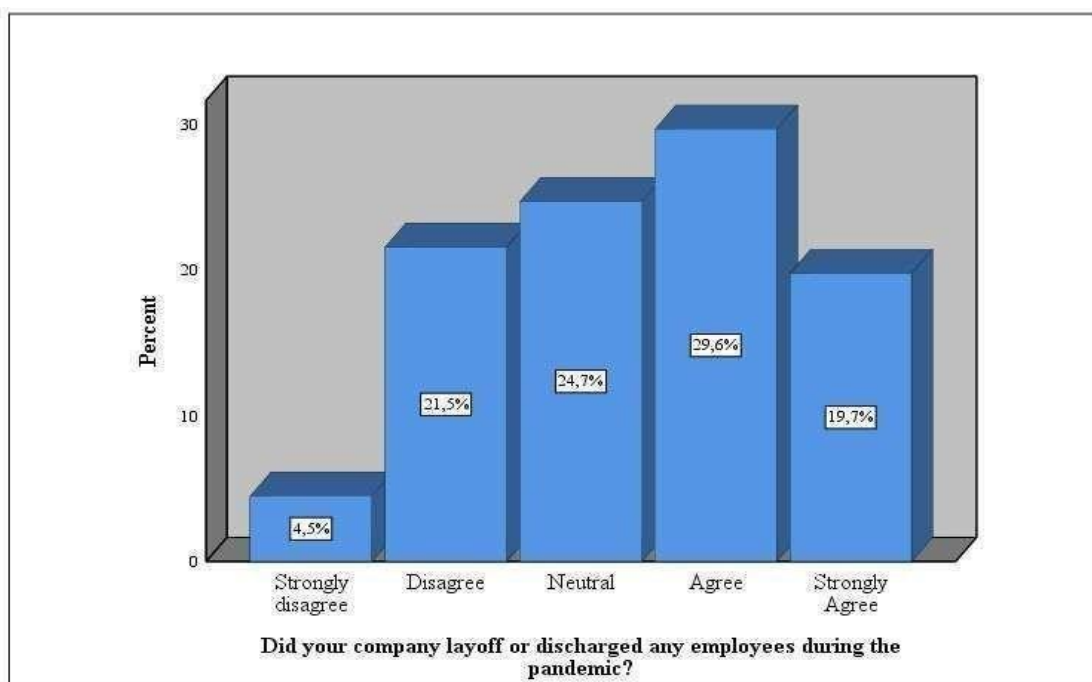


Figure 6.9: Layoffs or discharges during pandemic

In parallel, 22.9% of the study sample, strongly agrees that there was a positive effect on the employees during the pandemic, 35.4% agrees, 21.5% is neutral, 15.7% disagrees and 4.5% strongly disagrees.

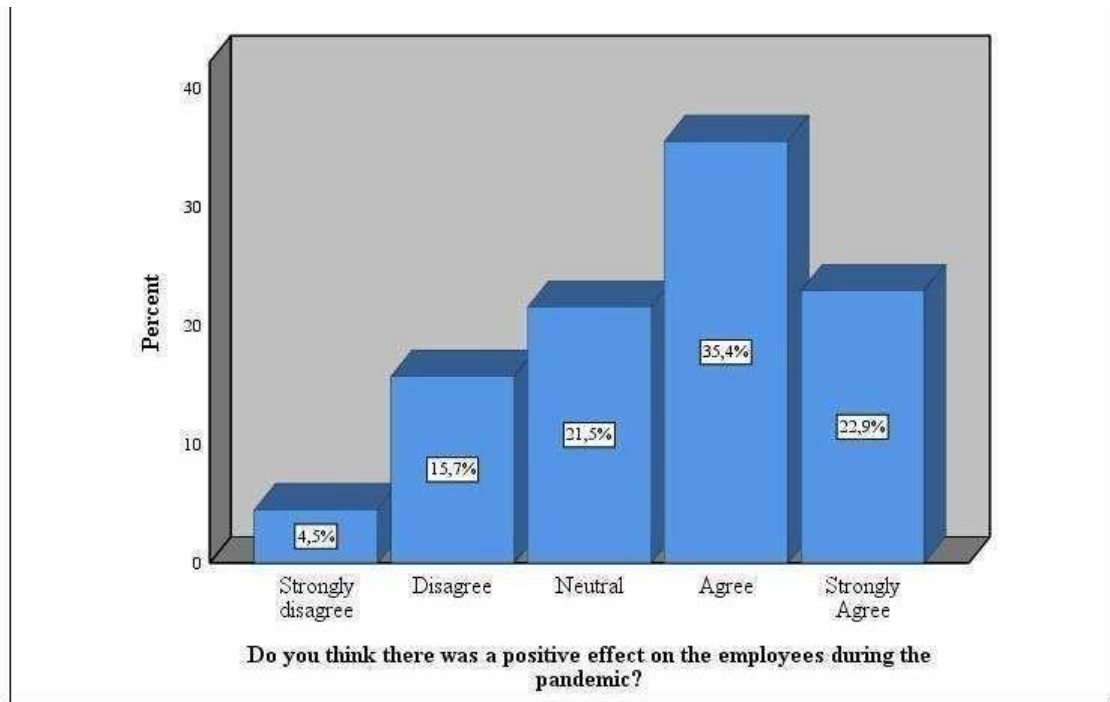


Figure 6.10: Positive effect on the employees during pandemic

As regards the possibility, of salary deduction experience during the pandemic, it is noticed that the level of agreement is equal to 61.0%.

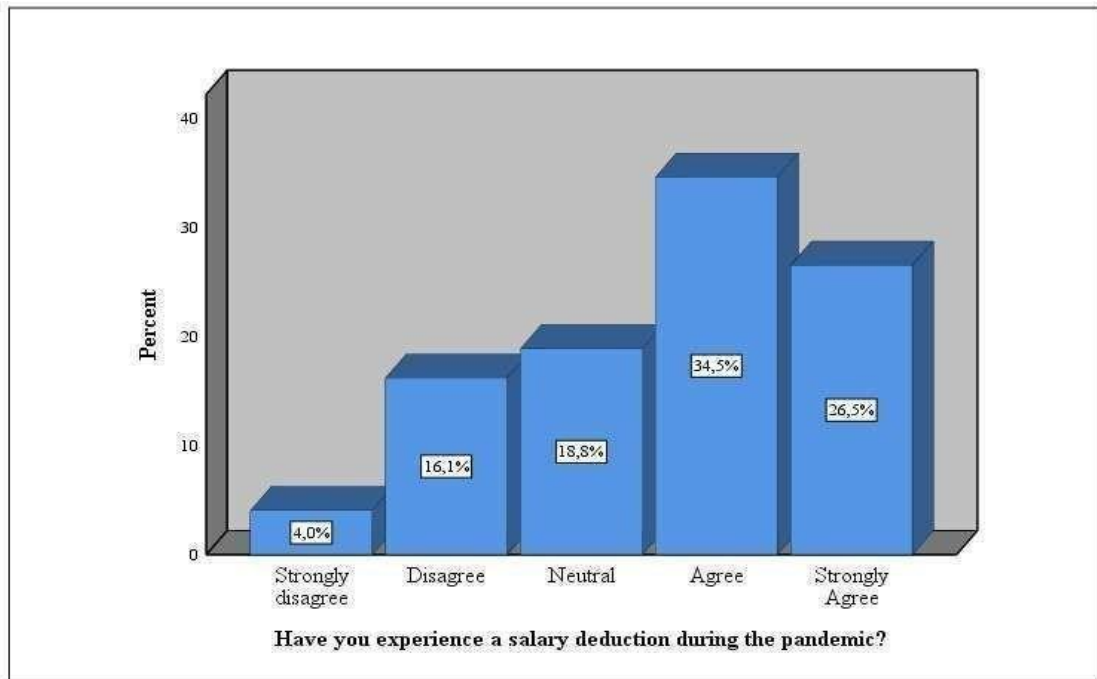


Figure 6.11: Salary deduction during pandemic

Moreover, it appears that 4.9% of the respondents strongly disagree that developed new creative skills during the pandemic, 10.8% disagree, 19.7% are neutral, 39.5% agree and 25.1% strongly agree.

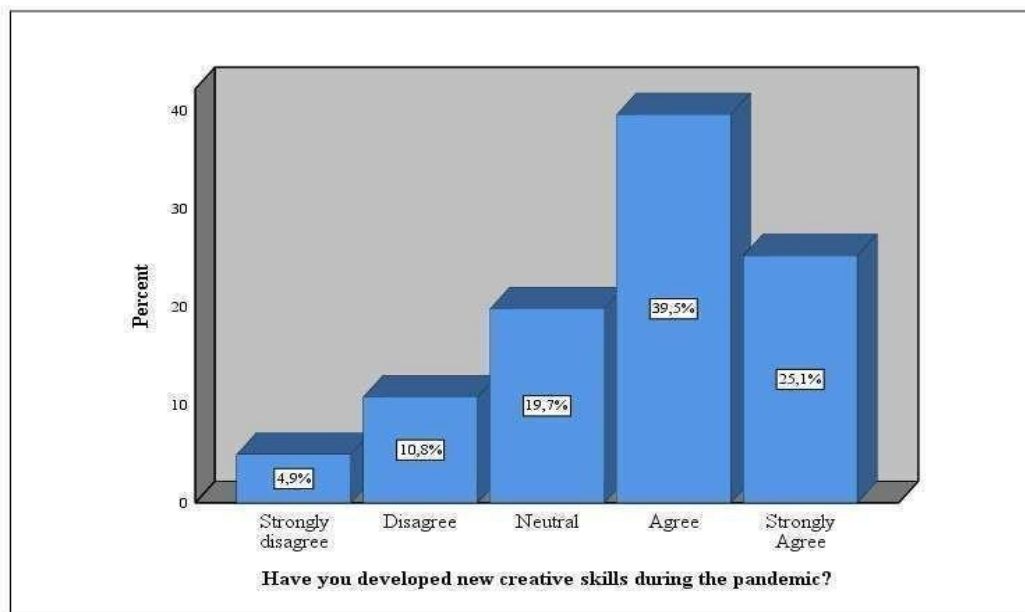


Figure 6.12: Creative skills development during pandemic

Also, 6.7% of the respondents strongly disagree that developed new technical skills during the pandemic, 11.2% disagree, 16.1% are neutral, 33.6% agree and 32.3% strongly agree.

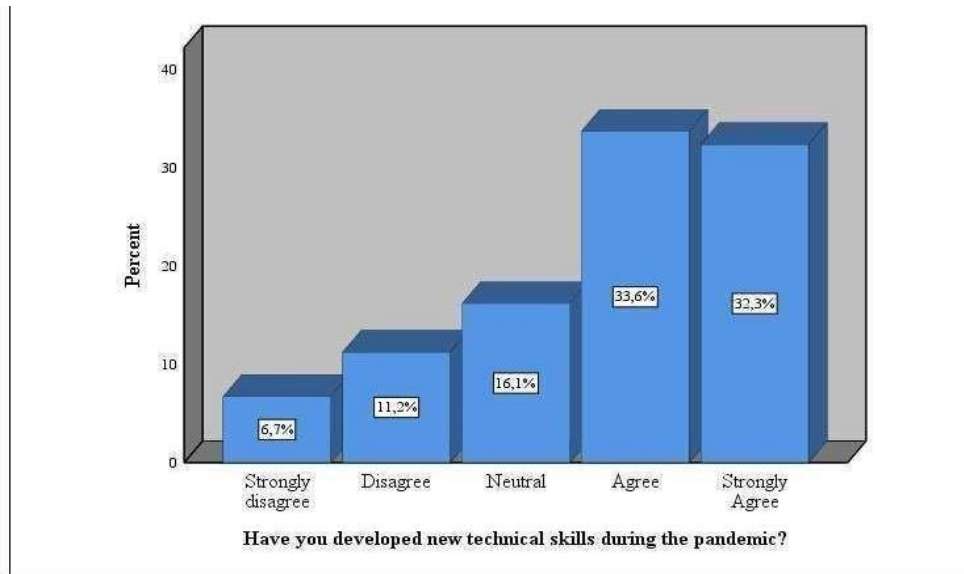


Figure 6.13: Technical skills development during pandemic

Finally, 74.0% of the respondent agree in a relative or absolute level, that their working hours increased during the pandemic, while the corresponding percentage as regards their productivity levels is equal to 60.6%.

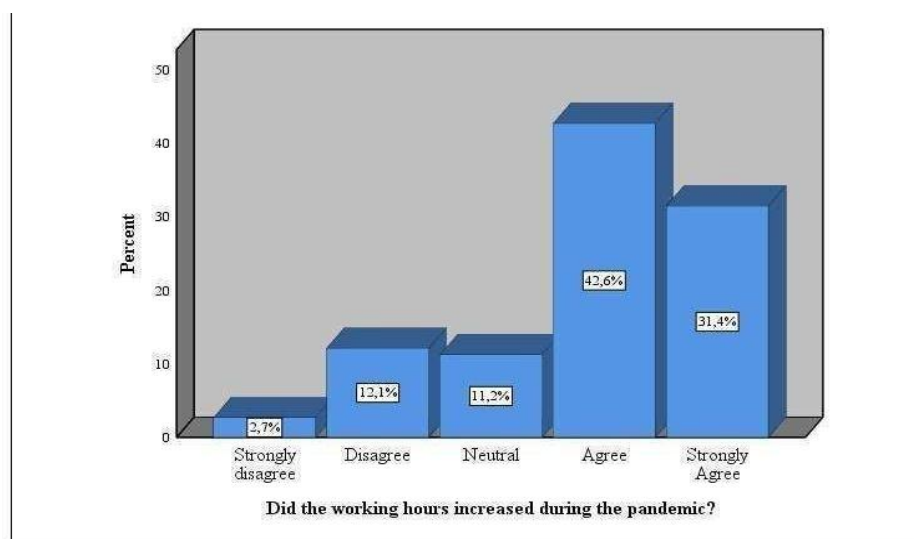


Figure 6.14: Working hours increase during pandemic

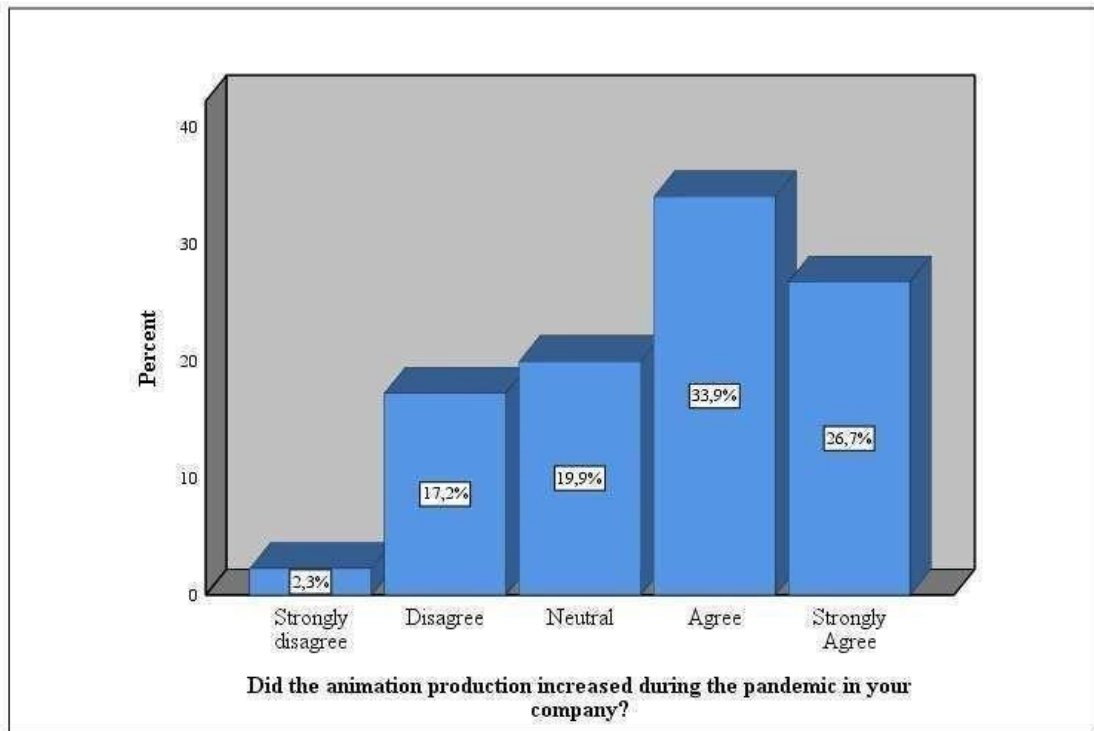


Figure 6.15: Productivity increase during pandemic

CHAPTER 7

DISCUSSION AND CONCLUSIONS

7.1 Discussion of Findings

7.1.1 Employability Skills

Animation constitutes a fast-growing industry among the creative ones, displaying significant growth worldwide and in particular in emerging countries. Despite that, little is known regarding particular labor market issues, including employability criteria, internships and portfolio building. As such, this study adopted a stakeholder“ analysis perspective, by taking into account students“ and employers“ views on these matters, so as to reveal the most important employability criteria in the animation industry, as well as the impact of their main venues for acquiring them. As regards employability criteria, this study revealed that (final year) students participating into internship programs of animation studios consider that these encompass a wide range of specific and generic skills, knowledge and competences. Students“ views seem to converge with respective employers“ perceptions on employability criteria, with the latter including according to their views a complex mix of job-specific and generic skills and competences.

These findings come into agreement with available empirical research on employability criteria in the creative industries (Lingo & Tepper, 2013; Carey et al., 2019; Yoon, 2019). Indeed, previous national and international reports have documented that core employability criteria in the creative industries include both occupation-specific skills, representing the particular needs of an employer or an industry (“for example.” computer literacy, creative-multitasking, business intelligence), and general or

transferable skills, which are required almost in every job (e.g., digital skills, ability to learn, academic and theoretical knowledge) (Skillset, 2011; UNESCO, 2015; UK Commission for Employment and Skills, 2015; Australian Department for Communication and the Arts, 2019; Carey et al., 2019; UK's Creative industries federation, 2020; Skills Development Scotland, 2021). As regards the animation industry, a report published by the UK Sector Skill Council for Creative Media (Skillset, 2011), revealed that there are two set of skills required by employers, i.e., core and specialist, resembling the dichotomy between occupation-specific and generic skills also required in the creative industries overall, verifying present findings.

As regards the particular types of employability skills required in the animation industry, this study found that these include three types, creative, technical, and soft (or social and generic) skills. Both students' and employers' views indicated that creativity is of major importance in order to be employed in the animation industry, a finding that agrees with previous empirical evidence on creative industries overall. Indeed, it has been widely supported that creativity lies in the very core of the creative industries (Kampylis et al., 2009; Claxton & Lucas, 2011; Bridgstock, 2011; UNCTAD, 2018), and being creative, that is to say generating novel ideas and being able to transform them into creative content, is highly required by employers (Hartley et al., 2015; Easton & Djumalieva, 2018; Carey et al., 2019).

The second skillset revealed in this study refers to technical skills, such as knowledge of motion and computer graphics, flowcharts management, storyboarding, and Aftereffects. Indeed, both students and employers in the animation industry verified that technical skills are of paramount importance in order to pursue a career and be successful in the working place, as it has been already supported by other researchers in the creative industries. Indeed, available empirical evidence has suggested that technical skills,

referring to abilities and knowledge needed to perform specific tasks, are invaluable for entering the creative industries as an employee (Furniss, 2008; Munro, 2017; Comunian & England, 2019).

Lastly, generic or soft or transferable skills are also important, as documented by present findings. In particular, both students and employers participated in this research agreed that social or soft skills which are not occupation- specific are very important for pursuing a career in the animation industry, as it has been suggested by other studies in the creative industries. Skills related to interpersonal competencies, social abilities and other working skills have been long acknowledged as crucial in order to be employed in the creative industries (Banks & Hesmondhalgh, 2009; Mietzner & Kamprath, 2013; van Laar et al., 2019; Van Laar et al., 2020), representing a skillset that predicts personal and employability success (Daniel & Daniel, 2015; Koppman, 2016; Lee, 2016; Munro, 2017). It has also been argued that being competitive in the creative industries as an employee requires other lifelong capacities along with creative and technical skills, such as personal agility, adaptability, openness to change, willingness to constantly learn and unlearn, personal agility and working under pressure (Wickramasinghe & Perera, 2010; Bridgstock, 2011; UNCTAD, 2018; Carey et al., 2019; Succi & Canovi, 2020).

Present findings not only converge with previous findings on creative industries overall, but also with empirical evidence on the animation industry in particular. Indeed, it has been argued that employability skills in the animation Industry include a wide range of job-specific and transferable skills, such as communication, team working, problem-solving, and learning (Alallan & Manaf, 2020), as well as that successful and competitive employees in the animation industry possess a combination of artistic talent and technical skills (Yoon & Malecki, 2010). It has also been suggested that authentic innovation and collective creativity, stemming from employees' creative skills, is critical

for the industry's growth in Malaysia (Hua & Woods, 2016; Standing & Standing, 2019), while similar findings have been documented for the same industry in other countries, including South Korea, Philippines, and Taiwan (Tschang & Goldstein, 2010; Lai & Lu, 2016; Yoon, 2019).

Overall, this study found that besides creative skills that are with no doubt of major importance (Holden, 2007), significant employability skills in the animation industry involve both specialized technical knowledge and soft skills that are transferable among different creative industries (Groenendijk et al., 2013; Lingo & Tepper, 2013; Comunian & England, 2018; Carey et al., 2019). Software handling, character building, storyboarding, aftereffects development and graphic design are only some of the technical skills required by individuals pursuing a career in the industry (Furniss, 2007; Spilsbury & Bakhshi, 2019; Carey et al., 2019), while other softer skills, such as communication, adaptability, flexibility and team working, should not be underestimated for their adding value on job candidates' professional profile (Daniel & Daniel, 2015; Koppman, 2016; Lee, 2016; Deming, 2017; Munro, 2017). Indeed, with technical and creative skills being converged, increased emphasis is placed on other transferable skills that predict professional success (Neff et al., 2005; Groenendijk et al., 2013; Koppman, 2016; van Laar et al., 2019; Succi & Canovi, 2020). Accordingly,

This study suggests that employees in the animation industry need to be technologically aware, highly skilled, creative, knowledgeable and socially competent, as verified by animation students' and employers' views.

Lastly, it should be noted that although students' and employers' views on employability skills largely converge, this study revealed some differences between the perceptions of these two stakeholders in the animation industry labor market. For example,

all employers documented that animation character building is of major importance for pursuing a career in the industry, along with building an own arts identity, with these skills being relatively underestimated by students, who paid greater attention to technical skills. In addition, although software handling was identified as very important by both groups of participants, employers seem to put greater emphasis on softer skills, such as adaptability, meeting deadlines, and having a learning spirit. Overall, although these small differences may be attributed to differences in working and industry experience between students and employers, may be all indicative of a “skill gap”, a phenomenon representing a gap between skills required or expected by employers for a particular job or industry and the real skills that graduates and candidates possess when applying for this job position (Safraz et al., 2018). Although this phenomenon has never been studied in the creative or animation industry, it has been largely documented in the contemporary labor market (Saad & Majid, 2014; Messum et al., 2015; Lim et al., 2016; Wolff & Booth, 2017; Suleman et al., 2021).

7.1.2 Internships’ Importance

Besides employability skills, this study confirmed the importance of internship programs for individuals studying animation and pursuing a career in the respective industry, as they provide for advanced opportunities of acquiring knowledge, skills and experience in a real-world context, as well as portfolio building opportunities. Indeed, previous studies have suggested that internships are crucial components of professional advancement and career progression in the creative industry (Scottish Funding council 2019; Carey et al., 2019), as they enhance work readiness and employability skills (Shade & Jacobson, 2015; Daniel & Daniel, 2015). On the other hand, it is important to mention that as the animation industry grows in a fast pace, employers’ expectations are also intensified

in terms of job candidates' professional and academic background, as verified by students' views on internship experience, which proved to be quite challenging. Besides being usually unpaid (Siebert & Wilson, 2013), internship programs provide a real-world opportunity of experiencing the hard working and challenging conditions characterizing the creative industries, including the animation one, as the production of creative goods is embedded with hard work, deep knowledge, long hours and insecurity (De Peuter, 2011; Legault & Weststrar, 2015; Menger, 2017).

In particular, both students' and employers' views verified that internships provide for advanced job opportunities and are important means for acquiring the necessary skills and competencies. Indeed, previous studies on employability skills have documented that besides formal education provided in higher education settings, vocation training in various forms is invaluable for acquiring job-specific and transferable skills (LagunaSánchez et al., 2020; Orazbayeva et al., 2020; Suleman et al., 2021). Given this study findings, internships provide for a real-world working environment where fresh graduated are able to enhance their employability skills, while being able to practice their previously acquired knowledge in a real setting, and coming respective difficulties and challenges faced by other employees, as is has also been supported by relevant studies in other industries (Kwan, 2015; Jackson, 2015; Kamaliah et al., 2018).

Overall, this study findings come into agreement with previous empirical and theoretical views suggesting that internships are crucial for acquiring and developing employability skills by combining in-class and workplace training, while leading to improved employability outcomes (Brewer, 2013; Mindham & Schultz, 2019). According to Lowden et al. (2011), employers tend to prefer candidates who have previously participated in different schemes of industrial and on-the-job training, as they consider them more attractive and capable of adapting in specific working environments and

circumstances.

The importance of internships, as verified by this study findings, has also been highlighted by relevant studies in the creative and animation industry, as it has been suggested that through internship programs.

Students are able to work in real-world settings and gain significant experience, while acquiring and developing the necessary skills that fulfill employers' requirements (Breznitz & Noonan, 2014; Lai & Lu, 2016; Carey et al., 2019).

Lastly, it should be noted that this study revealed that both students and employers face significant challenges during internship programs, which seem to converge, representing the two sides of the same coin. On the one hand, students documented that they often lack the appropriate skills when entering an internship program, they have limited preparedness, Such as communication skills "For Example" they cannot easily understand their clients' or supervisors' needs, and face significant difficulties of adapting in the working environment. On the other hand, employers stressed out that many trainees lack the Necessary skills required in a real working setting of an animation studio, required in a Real working setting of an animation studio, taking into account the gap between higher education training and real industry needs.

As such, an important finding of this study is that although internships provide an invaluable chance of acquiring a real-world experience in the animation industry and respective employability skills, lack of the latter as regards new joiners is a significant barrier for them to be highly effective.

Indeed, it has been suggested that receiving animation education in vocational schools or higher education institutions is not enough for acquiring the required knowledge and skills required by animation employees, and that skills acquired in

conventional animation education are inadequate for the actual work required, which leads to an inconvenience results both in creative and technical terms (Miyai & Yamaguchi, 2016; Lai & Lu, 2016; Jackson & Bridgstock, 2019).

Consequently, greater emphasis should be placed in the alignment between formal animation studies and real-world employers' needs in the animation industry, so as for internship programs to be more effective in terms of skills development and career growth.

7.1.3 Portfolio Importance

Another important finding of this research is the importance of portfolio building, which was identified by both group participants as crucial for verifying individual skills and competencies, as well as for pursuing a career in the animation industry. As such, present findings are indicative of the importance of portfolio building, as an important component of employability in the animation industry. Indeed, it has been suggested that having a good and skills-representative portfolio is highly valued by employers in the animation industry (Mietzner & Kamprath, 2013), who tend to take it into consideration in a higher rank than other typical qualifications, such as academic diplomas (Pumares et al., 2015).

According to students' views, portfolio building is vital for proving the existence of skills, knowledge and competencies. Indeed, portfolio building constitutes a major means for someone's presenting his own work and experience, thus, enhancing his employability potential both through paid jobs and freelancing. This importance was further supported by employers, who pointed out that when assessing a new applicant, they need to look the most fine he/she can do, the quality of work that he/she can bring to work. Besides, a portfolio is more valued than other typical qualifications ("for example." academic background) and is the first thing evaluated even before the interview is started.

Present findings come into agreement with previous empirical evidence on the importance of portfolio building in accordance with acquiring and verifying employability skills. Indeed, it has been suggested that the creative work is frequently accompanied by a “career portfolio”, that is to say paid jobs in short- term creative projects, based on a self-employment or freelancing status (Throsby & Zednik., 2010). It does not come as a surprise that full-time employment in the creative industries, including animation, has been partially replaced by working portfolio (Jackson & Bridgstock, 2019). It has also been argued that portfolio building is a crucial component of pursuing a career in the creative sector, while in conjunction with internships, lead to advanced opportunities for better paid jobs (Carey et al., 2019). Similar views have been expressed by Neff (2012) and Bridgstock et al. (2015), who argued that a good portfolio reflects a creative worker’s skillset and displays other entrepreneurial aspects, such a flexibility, adaptability and autonomy. What is more, from this study findings’ perspective, taking into account employer’s views, a good portfolio needs to be short and representative of the applicant’s knowledge, experience and skills.

7.1.4 Challenges Faced in the Animation industry

Beside employability skills, and internships and portfolio building importance, this study revealed a series of challenges faced by employees in the animation industry. As for students, given their relatively limited working experience, these challenges refer mostly to difficulties faced during internships, when the first come in touch with a real working environment. In particular, these challenges include skills shortages and relative incompetence as for meeting employers’ and supervisors’ expectations, such as late hours working, very strict deadlines and criticism, as well as lack of personal equipment or inability of being constantly creative. Communication problems and other hardships in the

context of team working, as well as adaptability difficulties, also considered as major challenges for new joiners throughout internship programs, which are not only interspecific but also applicable to the whole range of job positions in the animation industry, as also reflected in employers' respective perceptions.

In particular, employers (employees) revealed a wide series of challenges faced in the animation industry, including meeting strict schedules and deadlines, being involved in different projects, trying always to come up with new ideas, working

late, and being technologically adaptive. Furthermore, the gap between animation studies and real industry requirements is another major challenge for employers revealed by present findings, who face significant difficulties in finding the right candidate with the right set of skills. Taking into account both group participants' views, it is obvious that perspectives on challenges faced for employees in the animation industry highly converge, mainly referring to hard working conditions, creativity difficulties, and misalignments between higher or formal animation education and industry needs. That can be solved with a collaborative adaption from both industry and educational institute.

Indeed, creative industries constitute a very challenging labor market, an assumption that has been supported by previous research and verified by this study. In particular, it has been suggested that creative work, often depending on flexible working schemes and hard work, is very challenging, coupled with fierce competition among employees, job insecurity, and intense working conditions (Bain & McLean, 2013; Legault & Weststar, 2015; Hennekam & Bennett, 2016; Menger, 2017). In agreement with present findings, it has also been argued that limitations in human resources management and in particular commonly accepted informal recruitment methods pose additional challenges to employees in the creative industries, including animation (Currid, 2007; Taylor & Littleton, 2008;

Bridgstock et al., 2015; Machado & Fischer, 2017; Salder, 2020). Lastly, this study findings referring to gaps acknowledged by employers as regards industry requirements and new joiners' skills verify other labor market peculiarities of the creative industries, including the fact that transitions from formal education to a paid job is quite unstable and challenging (Lee, 2011; Allen et al., 2013).

7.1.5 Covid-19 Impact

The last research question of this thesis involved the impact of the covid-19 pandemic on several employability issues, including the development of employability skills, the effects of this public health crisis on working hours and salaries, as well as teleworking matters. According to the quantitative research findings, it is concluded that the pandemic had a significant impact on employees' earnings and working condition, as it was found that for the vast majority of respondents, working earnings decreased in the same time, as more than 60.0% experienced a salary deduction. Accordingly, it was found that several animation companies proceeded to employees' layoffs or discharges, for several purposes such as lack of projects and high expenses.

Although new hires were also achieved, In the same time, such as huge studios and large corporate animation production seemed to increase only for the half of the respondents included in this survey. Indeed, related research literature has documented that the covid-19 pandemic had a negative impact on the creative industries, resulting insignificant losses of jobs, sales and earnings (Florisa & Seman, 2020; Joffe, 2020; Harper, 2020), leading many companies in this industry to adopt new business models in order to survive (Davies, 2020; Eggers, 2020; Belitski et al., 2021). It can be, thus, concluded that the pandemic had important short-term effects on creative industries, including animation, emerging as a great challenge for different stakeholders (Berrero et al., 2020;

Parcella et al., 2020; Harper, 2020).

As regards other employability issues, including domestic work or tele- working and employability skills, it was found that a great proportion of animation industry employees were called to work remotely, given the physical contact limitation measures imposed by national governments, verifying that many creative workers switched to different modes of working, such as tele-working or domestic work and virtual performances, trying to be resilient and comply with social distancing measures (Banks & O'Connor, 2020). Regarding employability skills, this study demonstrated that communication skills were the most positively affected skills during the pandemic, given the greater communication requirements emerging due to domestic working or tele-working.

In addition, creative and technical skills were developed for more than 60.0% and 65.0% of animation employees, respectively, leading to the conclusion that the new working conditions did not significantly affect personal and professional development in the animation industry. Although no empirical evidence exists on employability skills during the pandemic, with the most relevant studies focusing mainly on the devastating effects on freelancers and part-time workers (Florida & Seman, 2020; Comunian & England, 2020; Belitski et al., 2021), this study findings support the idea that the new working modes introduced due to the pandemic may benefit employees in the creative industries in terms of employability skills development. In the same time, it can be argued that flexible working means, such as remote working, may be also used for internship purposes, as it has been previously documented that recent changes in workplace activities in the creative industries as a result of the pandemic have offered an opportunity of developing remote internships via on-line models, which can be considered as appropriate strategies for supporting students' employability potential and skills (Briant &

Crowther, 2020).

7.2 Conclusions and Implications

The aim of this thesis was to investigate employability skills and their acquisition in the animation industry, by adopting a stakeholder“ methodological perspective and by exploring students“ and employers“ respective views in Malaysia, which displays a significant growth during the last years. According to the research findings and by taking into account the respective available theoretical and empirical evidence, first, it is concluded that employability skills in the animation industry constitute a complex and multifaceted mix of skills, knowledge and competencies. This mix include major skills categories, i.e., creative, technical, and general or transferable skills, which often seem to overlap. For example, being creative and producing novel ideas simultaneously require having the right software Knowledge so as to transform those ideas into valuable creative content. In the same time general or social skills. Such as having a learning spirit and being adaptive, are highly ranked by both groups, in order to have advanced opportunities of being employed in the animation industry, resembling the respective employability context of the creative industries overall.

In addition, it is concluded that internships play a crucial role in acquiring and developing the right skillset required in the animation industry, as students are able to get invaluable experience in a real-world working setting via on- the-job training, while employers are able to guide new joiners according to their individual and industry needs. Internships significantly enhance work readiness and employability skills, but in the same time are characterized by important challenges both for trainees (students) and trainers (employers). In particular, students often lack the appropriate skills when entering an internship program, and find it hard to adapt into the real working context of animation

studios, displaying limited readiness and preparedness. Similar challenges are also articulated by employers, who stress out the gap between the animation industry skills requirements and real skills that new joiners possess, due to academia ineffectiveness. Besides that, strict budgets, tight deadlines and respective lack of time due to production pipelines also constitute obstacles for applying well- designed internship programs on behalf of employers.

Furthermore, an important conclusion of this thesis is that portfolio building constitutes a major means for someone's presenting his own work and experience, thus, enhancing his employability potential both through paid jobs and freelancing. As employers pointed out, a well-designed and representative of someone's skillset portfolio may be more valued than other typical qualifications ("for example." academic background), enhancing chances of getting Employed overall, portfolio building is identified as of critical important employability skills in the animation industry, where academic diplomas may have limited value in comparison to other industries or job positions, resembling the labor market of creative industries as well.

Lastly, it can be argued that employees, irrespective of their working experience, face significant challenges in the animation industry, due to hard working conditions, fierce competitiveness, strict deadlines and tough production pipelines. In addition, gaps between universities and the industry itself in terms of employers' needs is an important challenge that companies and particularly managers face, while finding and attracting talents seems to be also challenging. On the other hand, being goal-oriented, constantly developing individual skills in a life- long learning context, and having determination and an open-mind personal perspective, are important preconditions for pursuing a career in the animation industry, despite challenges. It should also be mentioned that, despite minor differences, both students' and employers' views on the labor market issues examined in

this thesis seem to converge. Lastly, this study concluded that the covid- 19 pandemic did not have any tremendous negative effects on employees' skills development, despite the challenges that this global health public crisis brought to animation industry, as new modes of working, such as tele-working, improved communication or other employability skills.

The aforementioned conclusions along with the empirical findings of this research have some theoretical, empirical, managerial, and educational implications. In theoretical terms, more updated theoretical paradigms evolving multi structured skill set should be developed in order to capture in a real way the employability skills required in the creative industries, given that older dichotomous models proposing a strict distinction between occupation-specific and generic employability skills Cannot longer capture the great variety of such skills. Which in turn seem to overlap in areal-world working context. Although labor markets in other industries may indeed represent a working world where employability competencies could be distinguished into specific and general skills, in the creative industries these skills frequently present great commonalities, calling for more specialized perspectives as regards their categorization. This is even more apparent in the animation industry, where creativity, technical, and transferable skills represent a complex mix of an individual employability potential.

In empirical terms, this thesis implies that the investigation of a labor market issue, for example employability skills, is not enough to capture the peculiarities of the respective market in the creative industries, including animation. As such, focusing in the same time on other related matters, such as venues for acquiring and developing those skills, could provide further and added value insight for managers, students, higher education institutions and other stakeholders. What is more, the latter perspective, that is to say stakeholders' analysis, seem to be an appropriate methodological approach to explore labor market issues in the animation industry, so as to portray the real and

contemporary working conditions. Of course, such an approach should take into account the complex relationships between these stakeholders in a country-specific perspective. For example, the Malaysian animation industry is highly dependent on governmental support schemes, that future research should take into consideration. It should also be mentioned that qualitative research is also suitable for investigating these issues, as it allows individuals to express themselves freely while providing for information-rich content.

In managerial terms, animation studios should pay more attention to the Development and application of internship programs. By adopting more sound and industry appropriate human resources management practices. In particular animation companies could significantly benefit from such programs as regards their recruitment strategies, as through internship schemes are able to enhance their access to talents and employees with the required skillset. In addition, animation studios are able develop this skillset according to their needs, while minimizing their recruitment costs and respective human capital risks. Of course, it should be noted that internship programs should be carefully designed, taking into account the peculiarities of the respective labor market and the developments in the global animation market, especially in technological terms. As present findings imply, more time and money should be dedicated to such initiatives, bearing in mind that the respective costs are counterweighed by benefits as regards access to talents and alignment between companies' needs and employees' skills and competencies.

In educational terms, higher education institutions offering animation studies should also be upgraded, by taking into consideration both employers' needs and industry respective growth. This thesis implies that many animation education programs fall behind the developments of the global and Malaysian animation industry, which displays great growth during the last years and has expanded tremendously, leading to great changes and

modifications. As such, animation studies offered by universities, colleges and other educational institutions should encompass those changes and modify appropriately their curricula, while providing more opportunities for coming in touch with the real-world working context. This also means that technological advancements in such institutions are also required, so as to resemble the industry Contemporary conditions and provide students the necessary training. For example, the acquisition of state-of-art equipment and development of technological facilities which are not yet available in colleges not only enhance their image and attractiveness, but also provide industry- like settings.

Last but not least, a major implication of this thesis refers to academia- industry relationships, which are now considered crucial for the animation industry's growth and competitiveness. Under this prism, animation schools and companies should enhance their collaboration in a wide range of practices, including human resources development. By improving their cooperation through well-designed internship programs, they can both significantly benefit as regards the quality of the human capital, technological advancements, and diffusion of animation- or/and market- related knowledge. In these programs, not only students are able to work in a real- world setting and gain significant experience, but employers are also in a position of satisfying their needs in terms of the required skills. As such, animation studios themselves benefit from having access to talents coming from colleges" alumni, the latter benefit from having enhanced opportunities of being employed, while colleges and other educational institutions get industry- upgraded and improve their image and educational quality. Of course, the government also plays a significant role in this relationship by providing the necessary support to the respective stakeholders, in a context of a "triple helix" perspective, where academia, industry and government cooperate in order to diffuse innovation and growth. In addition, remote internships should also be assessed by animation companies during the

pandemic or other crises, given their positive impact on development of employability skills.

7.3 Thesis Contribution

This thesis contributes to the existing literature on labor market dynamics in the creative industry by revealing the main stakeholders “views on employability skills and other employability-related aspects of the animation industry. To the best of our knowledge, this is the first research conducted in the context of the animation industry both in Malaysia and worldwide focusing on the particular employability skillset required in order to pursue a respective career. The only studies that have mentioned related labor market issues in the animation industry have dealt with this matter indirectly, either by taking into account specific aspects of animation growth (“for example.” collective creativity, innovation) or by focusing on the creative industries as a whole, without making any particular differentiations among different creative sectors. As such, this study contributes to available empirical evidence on employability skills both in the creative industries and in particular in the animation one. Taking into account that the latter displays a significant growth potential in emerging animation hubs around the world, including Malaysia, this study has also important practical implications for animation companies and (higher) education settings.

What is more, this study’s contribution is not limited to empirical evidence but also has theoretical implications for employability skills, supporting that the dichotomy between occupation-specific and general skills is not now compatible with real-world working settings, where success depends on a complex mix of skills which often overlap. Accordingly, present findings suggest that transferable skills are now of major importance for all industries. Furthermore, another important contribution of this thesis is that it has

highlighted the importance of portfolio building and internships, as crucial venues of acquiring employability skills in the animation industry, given that no study has dealt directly and excessively with these labor market issues in the past in this creative sector. Consequently, the verification of the importance of these two means for developing employability skills in the animation industry by the two major respective stakeholders (new joiners and employers) is another aspect that has to be considered by industry and education experts. Lastly, this study contributes in the empirical literature by providing a first assessment of the impact of covid-19 pandemic on employability skills in the animation industry, given the scarce evidence existing on these matters. industry by the two major respective stakeholders (new joiners and employers) is another aspect that has to be considered by industry and education experts. Lastly, this study contributes in the empirical literature by providing a first assessment of the impact of covid-19 pandemic on employability skills in the animation industry, given the scarce evidence existing on these matters.

7.4 Thesis Limitations

A number of limitations of this thesis need to be mentioned driving recommendations for future research. First, the relatively small sample size of the study participants regarding the qualitative research prevents generalization of findings. In addition, it worth mentioning that employers did not work for Human Resources Departments, thus, lacking typical knowledge of the official recruitment and selection criteria adopted in their companies, while all students had a primary experience in the animation industry primarily through internship programs, of which their working environment may be substantially different from real-world and paid job positions. In addition, no variability in the level of students' experience poses further limitations, given that this experience is

crucial for commending both on challenges faced while working in the industry and for the labor market issues examined in this thesis.

What is more, this thesis findings are focused only in the Malaysian market, so generalization of findings in the global animation industry is hindered.

Moreover, this thesis has some limitations in methodological terms. First, the language barrier is an important limitation, given that all interviews were conducted in English language and not in the native language of the study participants. As regards employers' sample, they had a very busy schedule, with prioritizing their tasks instead of conducting interviews, further more several studios rejected the involvement for private reasons, individuals with higher responsibility excluded participating and, consequently, they were hard to find or could not all dedicate the appropriate time during the in-depth interviews. In addition, a triangulation methodological perspective was narrowly performed, so as to add credibility to this research, as the quantitative research was conducted in a time gap in comparison to the qualitative one, and respective questionnaires' questions were somewhat different from interviews, focusing on the impact of the ongoing pandemic. On the other hand, this methodological choice was sound in terms of providing a further insight on the Malaysian animation industry.

Furthermore, considerable lack of research regarding employers' views on employability skills required in the animation industry poses further limitations in terms of background knowledge on this matter, while other recruitment strategies employed in this industry that could add further empirical insight were not considered. What is more, this thesis did not take into consideration other stakeholders' views on employability criteria, internships and portfolio building, given that the animation industry represents a complex and multifaceted labor market, where animation studios executives and cooperating

governmental bodies play a significant role. Another limitation of this thesis is that no comparisons were feasible with other creative sectors regarding the issues under investigation, so as to draw further valuable conclusions and make respective recommendations. Lastly, this study is limited as regards the Quantitative research in terms of sample and number of questions asked to survey participants.

7.5. Suggestions for Future Research

Taking into account the aforementioned limitations, it is recommended for researchers to further examine employability skills in the animation industry in more depth, by considering larger sample sizes of students or new joiners with different levels in the industry/organizational hierarchy. Others key informants' views, such as animation industry clients, higher educational institutions, governmental bodies, and freelancers, should also be considered by future research. For example, by taking into account the academic perspective, investigating academics' views of animation studies, could provide information-rich content regarding university curricula leading to the acquisition of employability skills required by the animation industry, as well as internships' design and impact on the respective labor market. In accordance, exploring freelancers' perceptions on employability criteria and portfolio building could add further knowledge on this matter, while governmental bodies' experience involved in the creative industries also is an issue of concern for future researchers.

Moreover, future empirical work on this matter could enhance understanding on the industry standards employed for recruitment and selection purposes, which should be considered by educational institutes and animation- related academic programs. In addition, investigating the benefits of longer internship programs on students' and new joiners' employability skills could also provide significant informational content,

especially regarding the alignment between the industry and academia, and the former's specification of standards for education institutes to follow.

Furthermore, other venues for acquiring and developing employability skills in the animation industry should also be explored, such as on-the-job training and mentoring. What is more, empirical comparisons between the animation industry and other creative sectors are another issue to be investigated in the future, so as to make relevant distinctions.

In methodological terms, further quantitative research is required in order to add valuable insight on the employability skills in the animation industry, for example by conducting a survey with close-ended questions to different market stakeholders. A sounder triangulation perspective should also be considered, adding credibility and reliability to present findings. Indeed, the combination of qualitative and quantitative research methods with the same research questions could provide improved access to larger samples and more empirical data to be thoroughly investigated. Lastly, the impact of the ongoing pandemic on the animation (creative) industry's labor market is an emergent research matter that needs examination, taking also into account the possible effect of new modes of working ("for example." tele-working).

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