Master's Thesis

The Quality of life in the Finnish Game Industry

Tuomas Roininen

Master's Thesis

UNIVERSITY OF JYVÄSKYLÄ

Department of Art and Culture Studies

MDP in Digital Culture

November 2013

JYVÄSKYLÄN YLIOPISTO

Faculty	Department
Faculty of Humanities	Department of Art and Culture Studies

Author
Tuomas Roininen

Title
The Quality of life in the Finnish Game Industry

Subject	Level
Digital Culture	Master's thesis

Month and year	Number of pages
November 2013	63 (+ 13 p appendices)

Abstract

The topic of this research is the quality of life in Finnish game industry. It is based on a similar survey conducted by the International Game Developers Association (IGDA) in April 2004. The aim is to analyse the issues that can be seen in the working environment of game companies.

The main objective of this qualitative case study was to identify the common problems related to the quality of life in game development companies, and the best practices to avoid or reduce them.

The results reveal that the Finnish game industry is currently suffering from a shortage of capable professionals, even though it is a rapidly growing industrial and export sector. The people working in the industry are satisfied with their game development career in general. The most common issues in the field are poor project management skills, lack of industry veterans to mentor new people, overtime compensations, and the attitude that promotes "crunching" and long working hours and a poor quality of life as a normal or even as signs of strength to be bragged about.

Keywords
job satisfaction, organizational satisfaction, organizational culture, human resource development, game industry,

Depository
University of Jyväskylä

Additional information

JYVÄSKYLÄN YLIOPISTO

Tiedekunta	Laitos
Humanistinen	Taiteiden ja kulttuurin tutkimuksen laitos
Tekijä – Author	
Tuomas Roininen	
Työn nimi – Title	
The Quality of life in the Finnish Game Industry	
Oppiaine	Työn laji
Digitaalinen kulttuuri	Pro gradu -tutkielma
Aika	Sivumäärä
Marraskuu 2013	63 (+ 13 p. liitteet)

Tiivistelmä

Tässä tutkimuksessa tutkitaan työntekijöiden elämänlaatua Suomen peliteollisuudessa. Tutkimus perustuu International Game Developers Associationin (IGDA) vastaavanlaiseen tutkimukseen, joka toteutettiin huhtikuussa 2004. Tavoitteena on tarkastella ongelmia, jotka ovat nähtävissä peliyritysten työympäristössä.

Päätavoitteena tässä laadullisessa tapaustutkimuksessa oli selvittää, mitkä ovat yleisiä elämänlaatuun liittyviä ongelmia pelinkehitysyrityksissä ja mitkä olisivat parhaat käytännöt ehkäisemään tai vähentämään elämänlaatuun liittyviä ongelmia.

Tutkimuksen tulokset osoittavat, että suomalaisella pelialalla on tällä hetkellä pula osaavista työntekijöistä. Vaikka peliteollisuus on nopeasti kasvava teollisuus- ja vientiala, ei työntekijöiden määrä ole lisääntynyt samassa suhteessa kuin liikevaihdollinen kasvu. Suomen peliteollisuudessa työskentelevät ovat yleisesti ottaen tyytyväisiä uraansa pelinkehittäjinä. Puutteelliset projektinhallintataidot sekä ylityökorvausten ja uusia työntekijöitä kouluttamaan kykenevien kokeneiden työntekijöiden vähäinen määrä ovat alan yleisimpiä ongelmia. Myös "crunch-ajan", pitkien työaikojen ja huonon elämänlaadun pitäminen normaalina ja sillä kehuskeleminen on alalla tyypillistä.

Asiasanat
työtyytyväisyys, organisaatioon tyytyväisyys, organisaatiokulttuuri, henkilöstön kehittäminen, peliteollisuus
Säilytyspaikka
Jyväskylän yliopisto
Muita tietoja

TABLE OF CONTENTS

FIGURES

1   INTRODUCTION

The game industry is increasing rapidly and the demand for skilled employees in the field is high. The Finnish game industry, despite being very young, has already gained success with a number of mobile, console and PC games.

This research deals with the quality of life in the Finnish game industry. It is based on a similar survey conducted by the International Game Developers Association (IGDA) in April 2004, called the *Quality of Life in the Game Industry: Challenges and Best Practices*. The aim is to analyse the issues visible in the working environment of game companies. IGDA (2004) states that some workers in the industry consider long hours, high pressure and a generally poor quality of life as normal, or even as signs of strength to be bragged about (IGDA 2004).

My general idea is to conduct a research about the quality of life in the Finnish game industry. The field is still very young in this country and, as Kari Pekka Hiltunen from Neogames states, has grown from an industry of fewer than 10 companies in the late 1990s into an integral part of the Finnish content export industry in the late 2000s (Neogames 2008). Recent figures show that the game industry was the largest cultural export industry in Finland in 2008 (Neogames 2008). The number of people employed by the industry has grown from 400 in 2002 to 1,147 in 2008 (Neogames 2008). By international standards, a typical Finnish game company is still relatively small. Only four studios have more than 51 employees. The rapidly growing Finnish game industry requires good work force in the future. This research shows how to improve the wellbeing of employees in game companies and how the companies can avoid downfalls.

I believe that this research will help companies to understand the importance of endorsing good practises and policies.

2 BACKGROUND

2.1 Features of the Game Industry

The Finnish game industry has steadily grown to become a significant part of the entertainment industry and of content production. Game industry is a capital-intensive sector characterised by high risk, intense competition and global markets. Because of this, game sales require extensive marketing, efficient image and reputation management, and large amounts of capital, especially when dealing with PC and console games. (Kalhama 2003, 4:15.) Today the digital distribution channels enable even small companies with smaller budgets to make mobile games. This reduces the capital risk significantly.

The Finnish game industry is still relatively young. Earliest game companies were established in the mid-1990s. The industry has grown heavily in the late 2000s and become an integral part of the Finnish content export industry (Neogames 2009). Figure 1 shows that between 2005 and 2010, the amount of game companies grew rapidly.
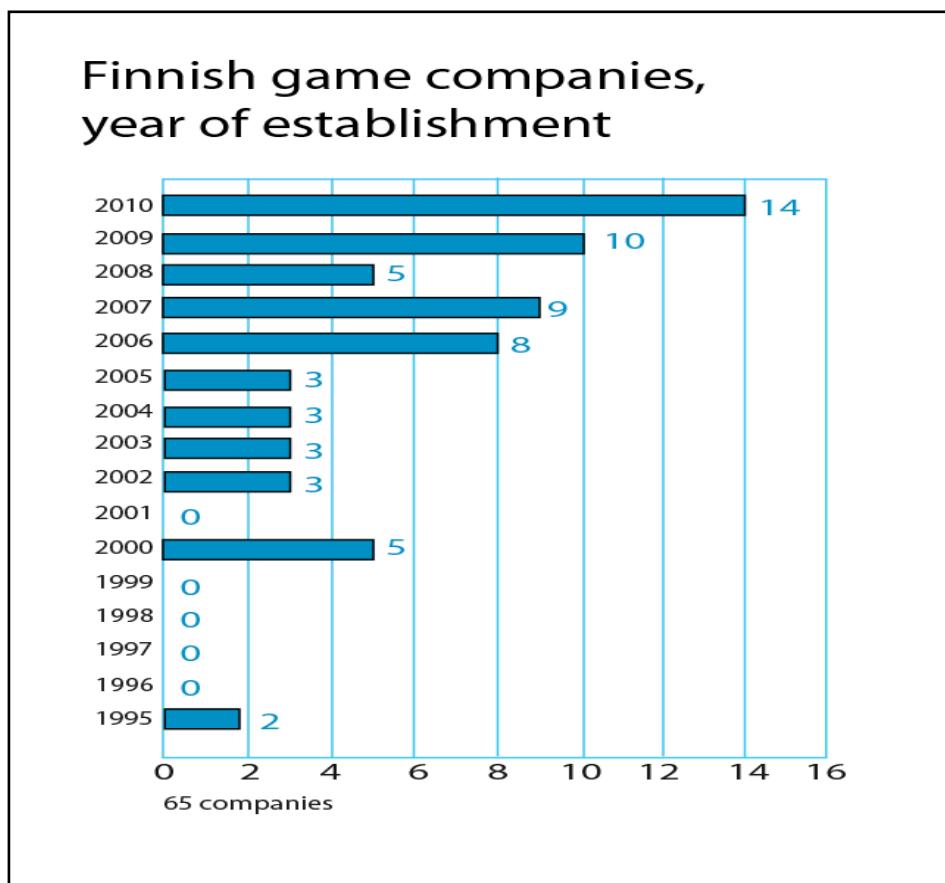
FIGURE 1. The number of game companies established in Finland 1995–2010.
(Neogames 2011.)

The number of employees in the Finnish game industry has more than doubled in less than 10 years, as can be seen from Figure 2. And just between the years 2011 and 2012, (see Figure 3.) the number of employees took a big leap. The amount of new employees it in the industry during that time is almost the same that was gained in the 10 years between 2002 and 2010. One evident reason for this is the change in the industry. Now even small companies can succeed without expensive publishing deals. The modern digital downloading platforms and services help customers and game companies to cut down costs. The customers can get the games cheaper without the need for resellers and the companies can gain profit directly.
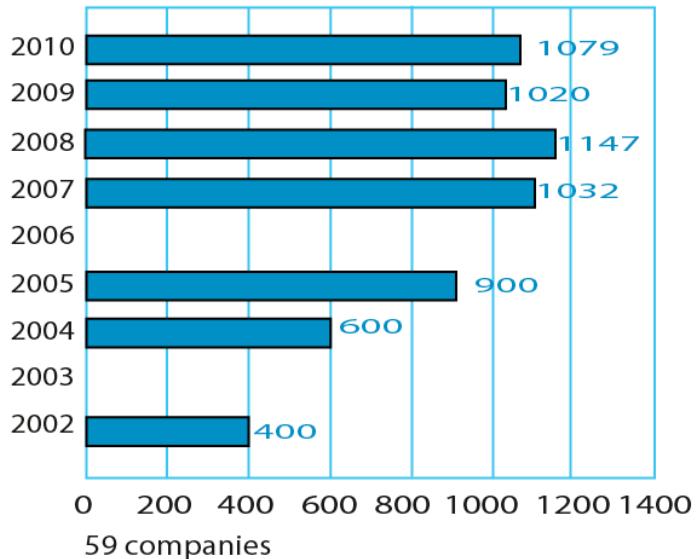
FIGURE 2. The number of employees in the Finnish game industry 2002–2010. (Neogames 2011.)
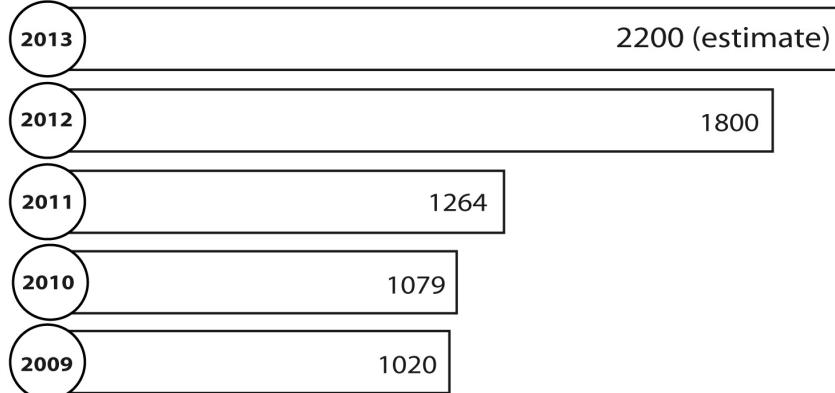

FIGURE 3. The number of employees in the Finnish game industry 2009–2013 (estimate). (Neogames 2013.)

The year 2009 and the beginning of 2010 were not particularly good for the game industry because of the economic depression. In the Finnish game industry the

number of employees decreased.127 jobs, or 11 %, were lost between 2008 and 2009. The situation was similar in all Western countries with a game industry. In Sweden 250 jobs, or 18%, were lost. (Neogames 2011, 7–8.)

In 2010, as well as in 2008, approximately 200 people worked abroad for Finnish game companies. The total number of positions does not include most of the freelance or intern work. Some of the subcontracting work (outsourced game music, outsourced marketing, etc.) is also excluded. The extent of this type of employment can be estimated to be 200–300 man-years annually. The total employment rate in the games industry is therefore higher than the figures indicate. (Neogames 211, 7–8.) Every game company has their own specific way to handle game project. Mostly it depends on human resources at hand. (Kalhama 2003, 25.) The need for using freelancers or for subcontracting depends on the project itself.

The Finnish game industry is concentrated in the capital area (Helsinki, Vantaa and Espoo) with 34 % of the game companies located in this region (see Figure 4). Most new start-up companies have been established outside the capital area. There are many reasons for this progress. One is that other Finnish regions have invested public money and effort to support the game industry. Another one is that the digital distribution model, especially the App Store, lowers the entry level of investments and makes game development economically possible for smaller companies. The third reason is that the number of companies in Tampere has increased. In 2008, the biggest game studio in Tampere was the THQ- owned Universomo, which employed 50 people. Universomo closed in spring 2010 and a group of their former employees established their own company. Game industry veterans establishing new start ups seems to be a typical evolutionary pattern in the game industry. (Neogames 2011, 8–9.)

The Finnish game industry is more dependent on international than domestic markets. The domestic market in Finland is relatively small (Neogames 2009, 8) because of the small size of the consumer field. There simply are not enough buyers for the products. When the aim is to create products for export, the physical location

of the company is not relevant. A Finnish game company can easily be located even in Lapland. Actually the number of game companies in the Northern part of Finland, like in Oulu, has increased during the last couple of years.
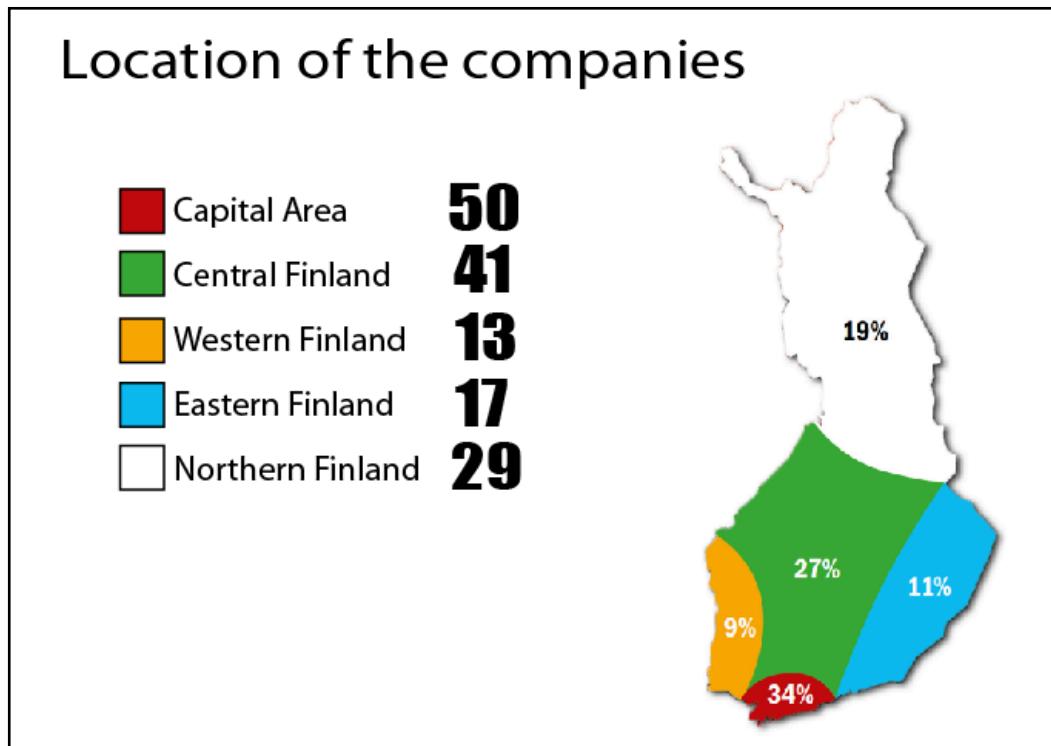
FIGURE 4. Location of the companies in 2013. (Neogames 2013.)

The Finnish game industry is heavily dependent on international markets. According to Neogames (2011), in 2010 90% of the turnover came from exports. Compared to the markets in many other European countries, the Finnish domestic market for games is small. This is due to the small population that makes the companies unable to count on the domestic market to generate significant income. (Neogames 2011, 7.) The Finnish companies need to focus their resources on foreign markets. Figure 5 shows the current main markets to be Western Europe and the USA. Asia is still a very small target for Finland. Even though Japan has a very powerful game industry and a large market, it is a very hard market to penetrate, mainly because of Japan's domestic game companies like Nintendo and Sony. In order to get to Asian markets, the game companies need reliable partners that already know the market. In June 2013 Supercell made a partnership deal with Gungho Online Entertaiment Inc. to create a series of exclusive in-game features that will appear in each of the

company's flagship titles. Later in October 2013, Supercell sold its 51% of stakes with $1.53 billion to the telecom and Internet giant SoftBank and its subsidiary Gungho Online Entertaiment Inc. (Nye Griffiths 2013.) This may make it a bit easier for other Finnish game companies to penetrate Japan's game market in the near future.
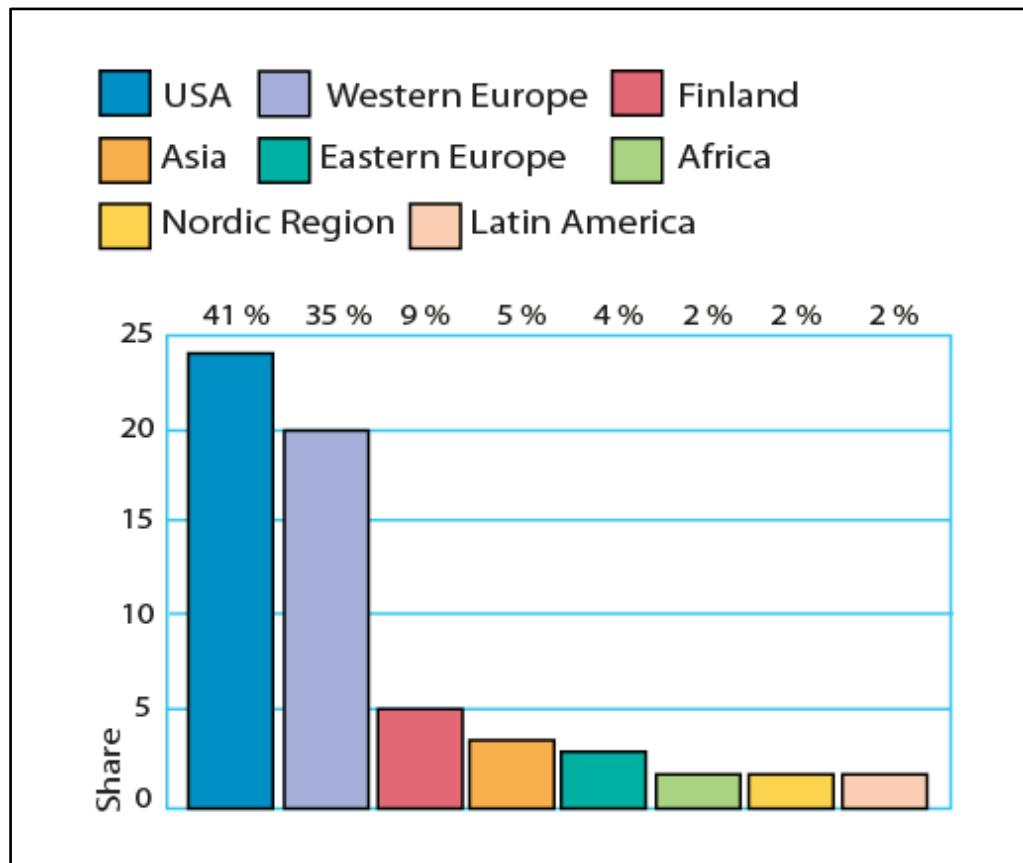
FIGURE 5. The main market areas of the Finnish game industry. (Neogames 2009.)

Figure 6 shows the companies' answers to Neogames' study about turnover in the industry between 2008 and 2013. It should be noted that before 2010, the turnover and the number of employees were growing at the same rate. From 2010 onwards the turnover has been growing faster than the number of employees. This is largely due to the changes in the value chain. The value of the IPs is growing faster than the amount of work required to make them. (Neogames 2011, 7.) In October 2013, Gung Ho and Softbank acquired 51% of Supercell. With the aforementioned 2013 acquisition of Supercell, the total estimated value of Game Industry has doubled from one to two billions.. (Neogames 2013.)
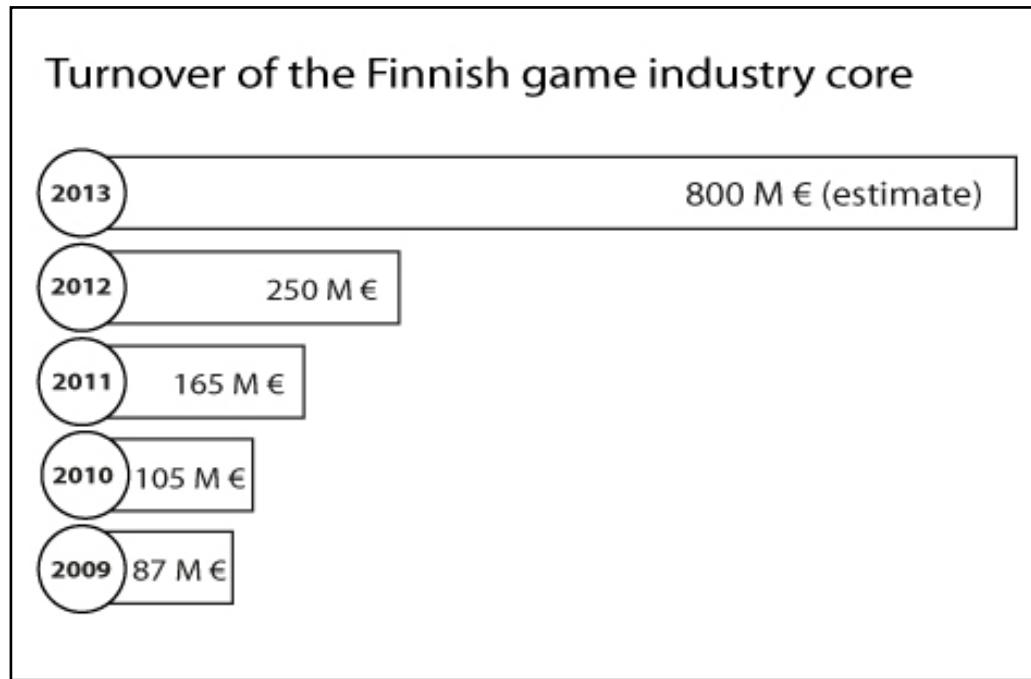
FIGURE 6. Turnover of the Finnish game industry core (game development) 2008–2013. (Neogames 2013.)

The total value of the Finnish game industry in 2011 was about 270 million euros (see Figure 7). This consists of 165 million euros in the game industry core (selling games and app purchases), 50 million euros gained through investments, 30 million euros from mergers and acquisitions, and the rest from the merchandise and licensing of toys, design products etc. The CAGR – Compound annual growth rate, the year-over-year growth rate of an investment over a specified period of time, in the Finnish game industry between 2004 and 2013 has been 39.5%. (See Figure 8.) (Neogames 2013.)

TOTAL VALUE OF THE FINNISH GAME INDUSTRY IN 2011

25 M €
30 M €
50 M €
165 M €

GAME INDUSTRY CORE
165 M €

INVESTMENTS
50 M €

MERGERS & ACQUISITIONS
30 M €

MERCHANDISE & LICENSING
25 M €
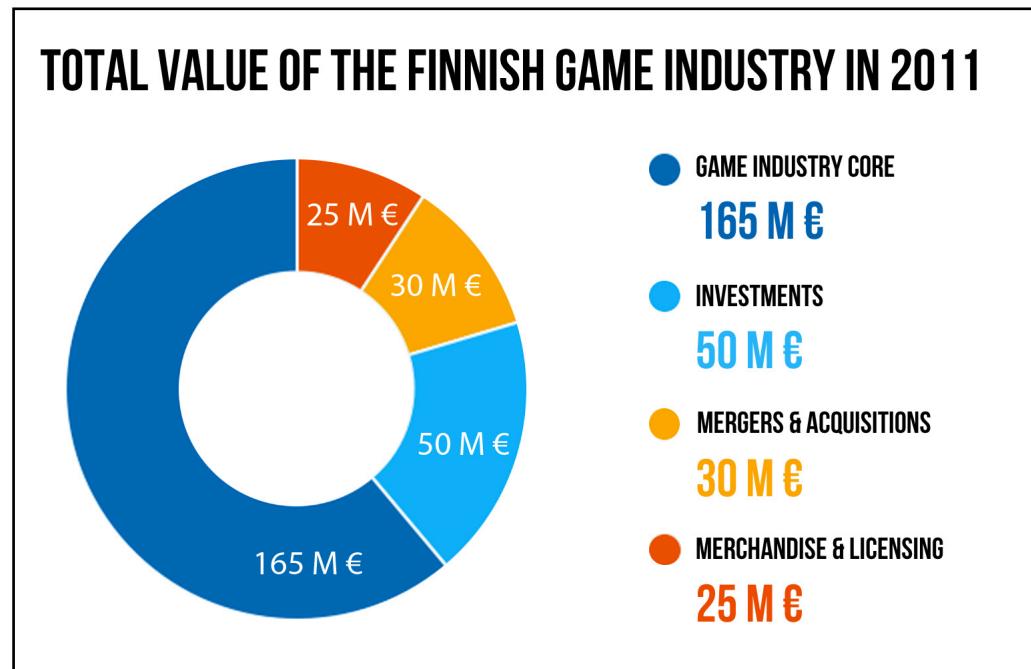
FIGURE 7. Total value of the Finnish game industry in 2011. (Neogames 2013.)

CAGR - COMPOUND ANNUAL GROWTH RATE IN THE FINNISH GAME INDUSTRY

| 2004 - 2013 | 39,5% |
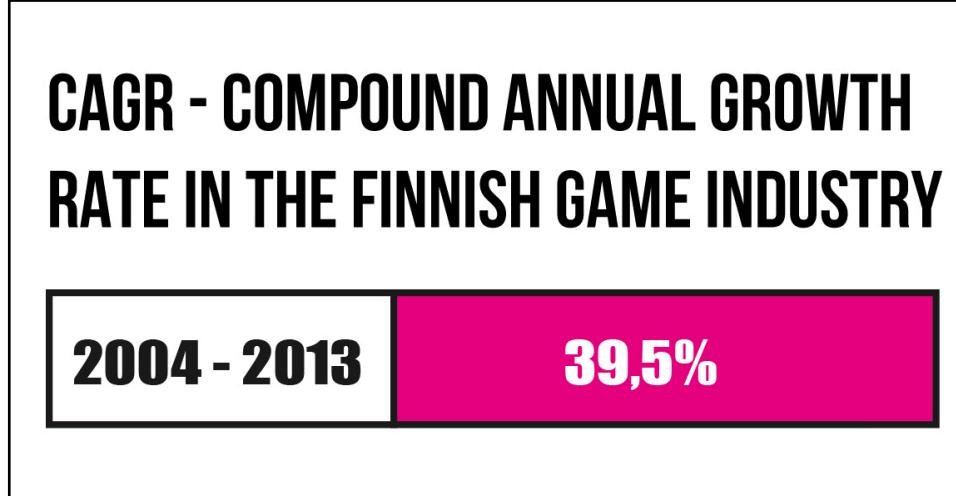
FIGURE 8. CAGR - Compound annual growth rate in the Finnish game industry. (Neogames 2013.)

The stages of development in the Finnish game industry between 1982 and 2013 (Hiltunen, Latva and Kaleva 2013)

1982 - 1991

- The formation of the Finnish game culture.

1992 - 1997

- Finnish game development hobby-based; enthusiasts organise into game development groups.
   → Focusing on professional game development business begins.

1997 - 2001

- Mobile Games and the first big investments.
   → The development of technology and business despite failures.
   → Finland's strong mobile trend is born. The first major Finnish hit games for console platforms (*Supreme Snowboarding*, *Max Payne I* and *II*).

2002 - 2005

- Investment recession and the rise of Nokia (including N-Gage devices and the N-Gage service).
   → The mobile trend strengthens.

2005 - 2007

- The first digital distribution channels (Steam for PC) and the consequent breach in the PC value chain.

2008 - 2010

- Apple's App Store
   → Digital mobile distribution begun. Facebook and social gaming. Breach in the console platform distribution value chain (PSN, Xbox LA). The birth of the Angry Birds phenomenon.
   → Integration of the game industry and the entertainment industry begins.

2011 - 2012

- Major international investments (81.3 million USD 2011–2012). Boom in Finnish game industry start-ups.

2012

- Digital distribution, mobile platforms (including tablets), widespread upheaval caused by game monetisation. The Free-to-Play model popularised. The player can buy extra features through In-App Purchase within the game.
  → *Hayday* and the *Clash of the Clans* Supercell phenomenon. (Hiltunen et al. 2013, 8-9.)

Finland has traditionally been the pioneer in mobile games (see Figure 9). This is the result of Nokia's strong presence in the country, coupled with the high penetration of mobile technology. (Neogames 2011, 8–9.) Many of the small Finnish gaming companies started their operations by making games and other applications specifically for mobile phones. This provided opportunities for the talented demo scene game enthusiasts, who were used to compressing the program code into a small space and had learned how to make the most out of technically limited operating environments. (Saarikoski & Suominen 2009, 29–31.) App Store is able to offer a simple business model and a solid development environment for game developers. The success of some Finnish games (*Angry Birds*, *Monster Trucks Nitro II*, *ZenBound*, and *Minigore*) has also encouraged small start-ups to choose iOS as their primary platform. (Neogames 2011, 8–9.)

Primary platforms

Mobile including pads ■ PC, digital download and retail

Consoles, digital download and retail ■ Online games

Other

25 — 39 %
10 — 16 %
9 — 14 %
14 — 22 %
6 — 9 %

Number of companies

64 companies   Platforms
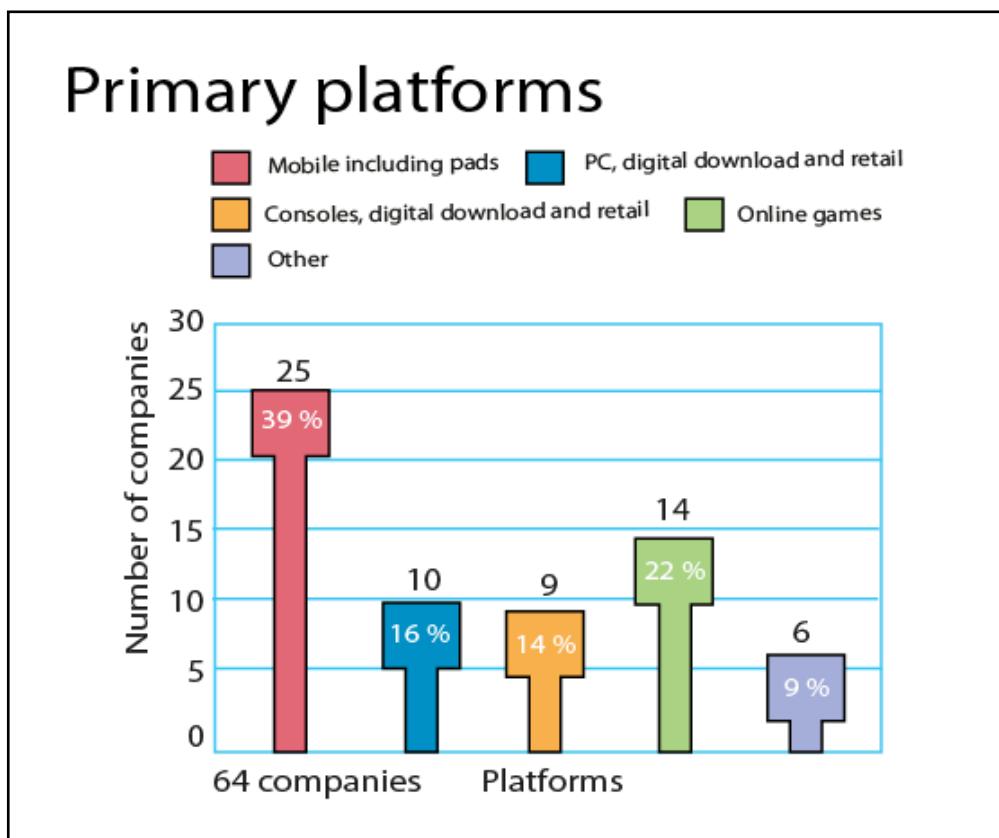
FIGURE 9. The primary platforms. (Neogames 2011.)

There also seems to be a strong tendency to develop the same title for several console platforms and PC at the same time. If this progress continues, the question about primary platform might soon be irrelevant, particularly when the technical progress of tools and the economical sense supports the idea of multiplatform development. (Neogames 2011, 8–9.)

The structure of the game industry consists of a wide range of operators (see Figure 10). The game developer is a company responsible for the creation and development of the game and turning it into a finished product. Manufacturer or hardware manufacturer creates the platform for which the games are made. Hardware manufacturer refers mainly to companies such as Sony, Microsoft and Nintendo that produce modern consoles. Platform manufacturer also works closely with publishers. Venture capital investors finance both the companies that develop games and the ones that develop platforms. Publisher is the one that enables business by publishing the gaming products for commercial utilisation. The role of the distributor is to

export the finished products to consumers via retailers and any other possible channels. (Kalhama 2003, 23–24.)
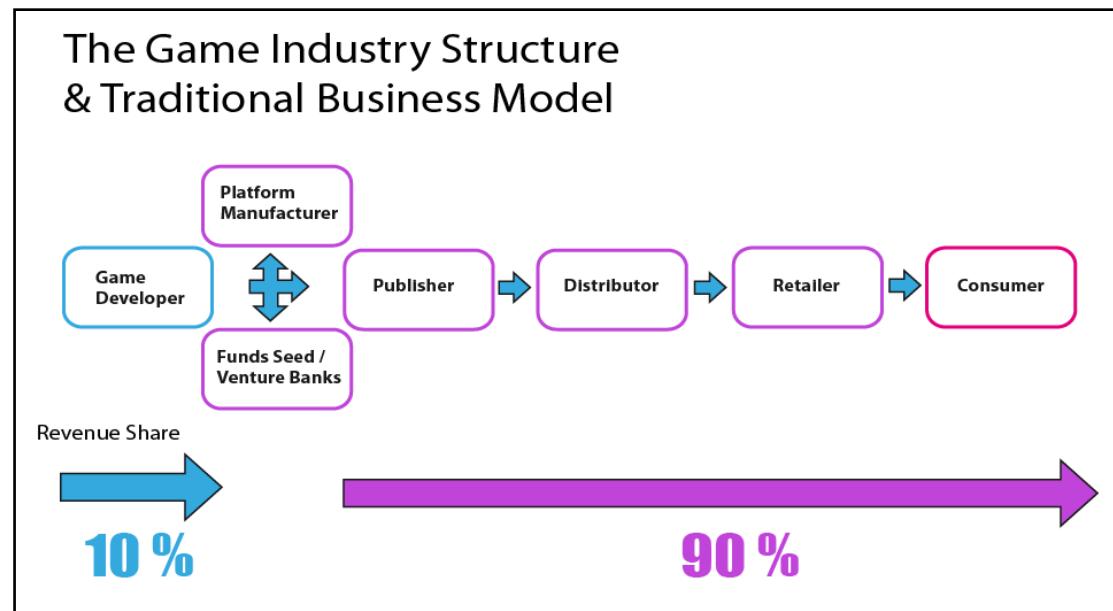
FIGURE 10. The Game Industry Structure and the Traditional Business Model. (Kalhama 2003; Latva 2013.)

Digital distribution has transformed the game industry value chain. The game developer can now be the publisher and sell its product directly to the consumer through digital online services like application stores. The traditional model is still in use, but the digital distribution model has given a better chance even for small game companies to succeed and retain the intellectual property rights to their products. As the development costs are spiralling and the risks associated with producing AAA games are increasing, many game developers are directing their creative investments to downloadable games. (Sotamaa & Toivonen 2010, 22–23.) This is one of the reasons why the Finnish game industry is currently growing. For the game developer the revenue share is much bigger than it was before digital distribution, because there are less middlemen between the developer and the consumer (see Figure 11). For a small company, the digital distribution value chain offers more possibilities and better value for investment than the traditional and more complex retail value chain. From a strategic point of view, digital distribution, despite its many challenges, seems to be the most reasonable path for the small independent developer.

(Neogames 2011, 8–9.) Similar to other knowledge-intensive industries, the game business is transforming from selling fixed items with set features and a one-time sales value to providing platforms with virtual commodities and all sorts of upgrades and value-added services. Online distribution of games turns the focus away from the carriage media and accentuates the significance of additional services that build a mutually beneficial and long-lasting relationship between the platform holder, developer and the player. This way the company can maintain a longer lifespan with smaller costs for their products, thus increasing the revenue. (Sotamaa & Toivonen 2010, 30.)
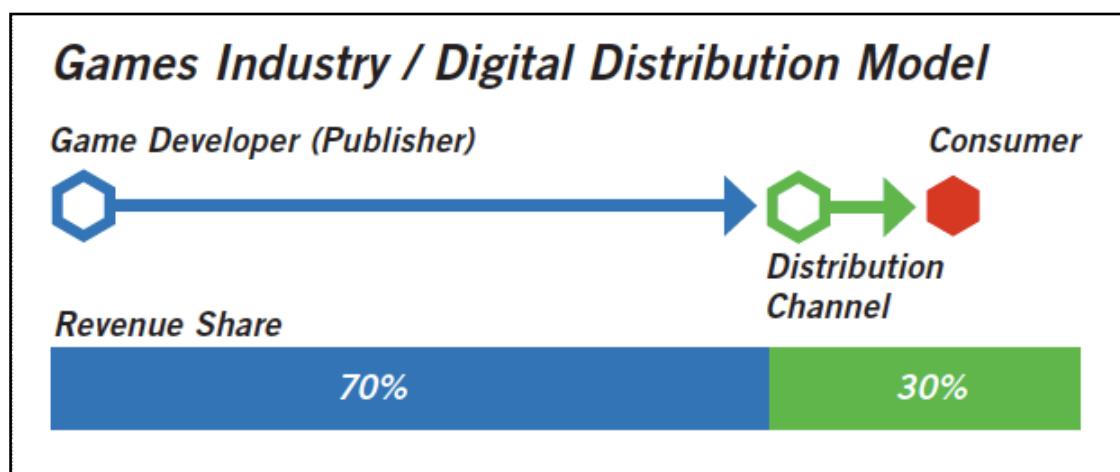
FIGURE 11. The Game industry digital distribution model. (Neogames 2011.)

According to Kalhama (2003) quite many small and medium-sized enterprises are still operating as self-organised groups of enthusiasts. In such companies everyone involved in the production decides what they want to do at a given time. It should be noted that to professionally manage the production, to maintain a structured progression and to ensure the quality of production, the process should be managed like any other product development process in the creative content industry. (Kalhama 2003, 30.)

One clearly identified problem in the game industry is the lack of managerial skills together with the challenges created by the inadequacy of the non-standard policies and practices. There might not be specific ways of doing game projects because

different projects rarely are alike. In terms of human resource management, another key issue in the game industry is the dilemma between the creative atmosphere of the creative people and the consistent goal-oriented and effective work. Many industry experts who work that way do appreciate the freedom, often fuelled by the emergence of creative solutions. Then again, such work can easily lead to unstable production management with production schedules, quality and goals also changing in a creative manner. (Kalhama 2003, 30.)

Self-organising production management is a traditional working model on an amateur level, where committed individuals are dedicated to their work because of personal motivation. From the point of view of industrial production and of business, the model contains a lot of grey areas that can jeopardise the company's quality control and even the whole business. The organisation of production is one of the biggest challenges the leaders of game companies will face. Especially the small start-up companies could benefit from the expertise of production practices in the field. (Kalhama 2003, 100.)

Figure 12 presents the production team model of international game developers. This kind of production plan structure is commonly used in reasonably big international game companies that employ more than 80 people. The production model of Finnish companies is lighter than the international model because of the smaller number of staff. In practice there are leads with small teams and the production can be supplemented by sub-contracting. (Kalhama 2003, 100.)
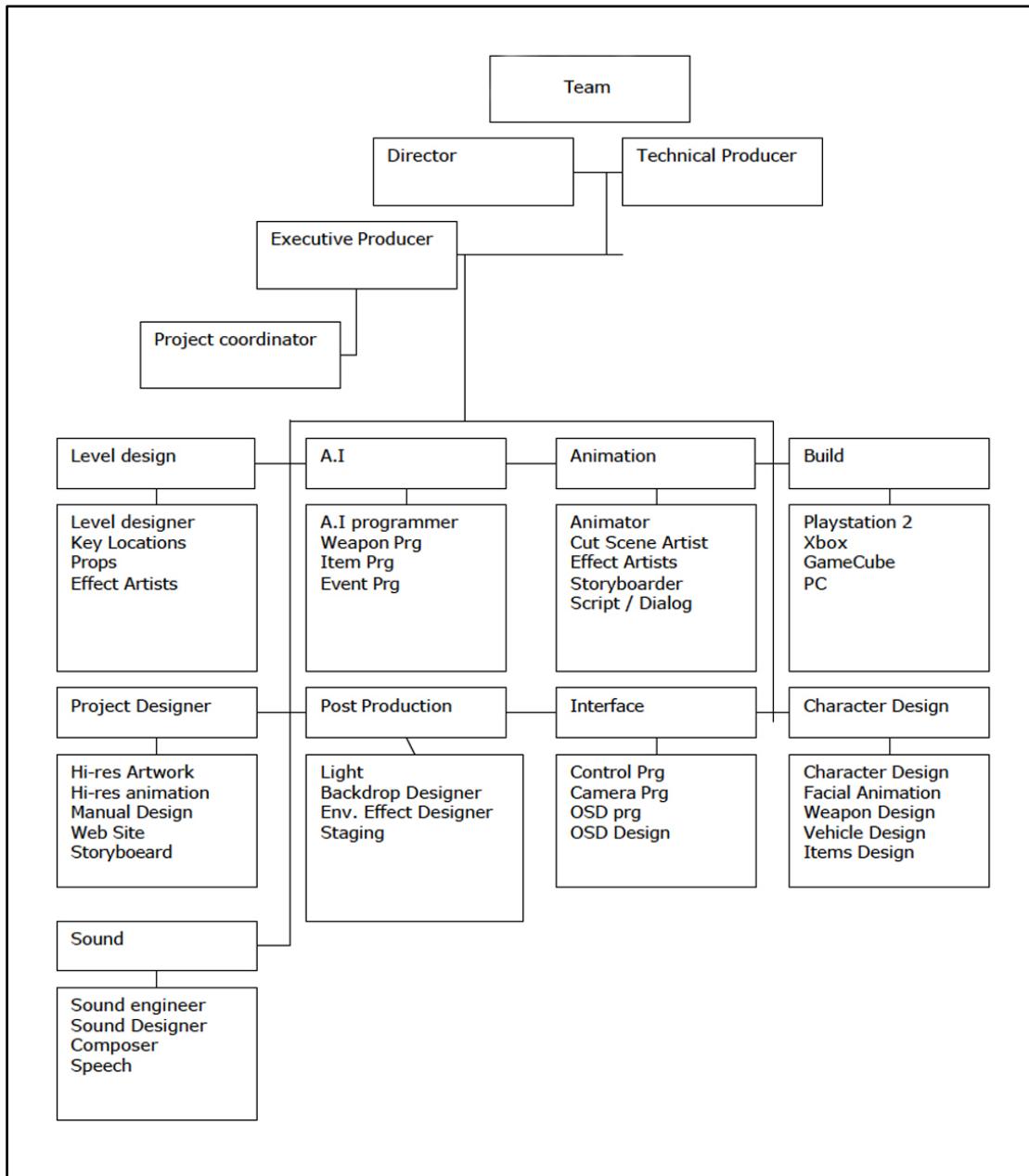
FIGURE 12. The model of a production team. (Kalhama 2003.)

Figure 10 describes the traditional PC and console game development cycle, which begins on the idea level, goes all the way through the levels of development, concept development and demo-making to securing the publishing contract and ending with the production of the finished commercial product. The purpose of Figure 13 is to identify the operation of game production in relation to the production process and time management. For mobile games the development cycle is much shorter, taking only a few months. The publishing contract is preferably acquired on a very early stage for, as shown by Figure 13, the biggest part of the development takes place

after the contract is secured. From the perspective of the game developer, this is all about risk management and the minimisation of production costs. (Kalhama 2003, 98.)
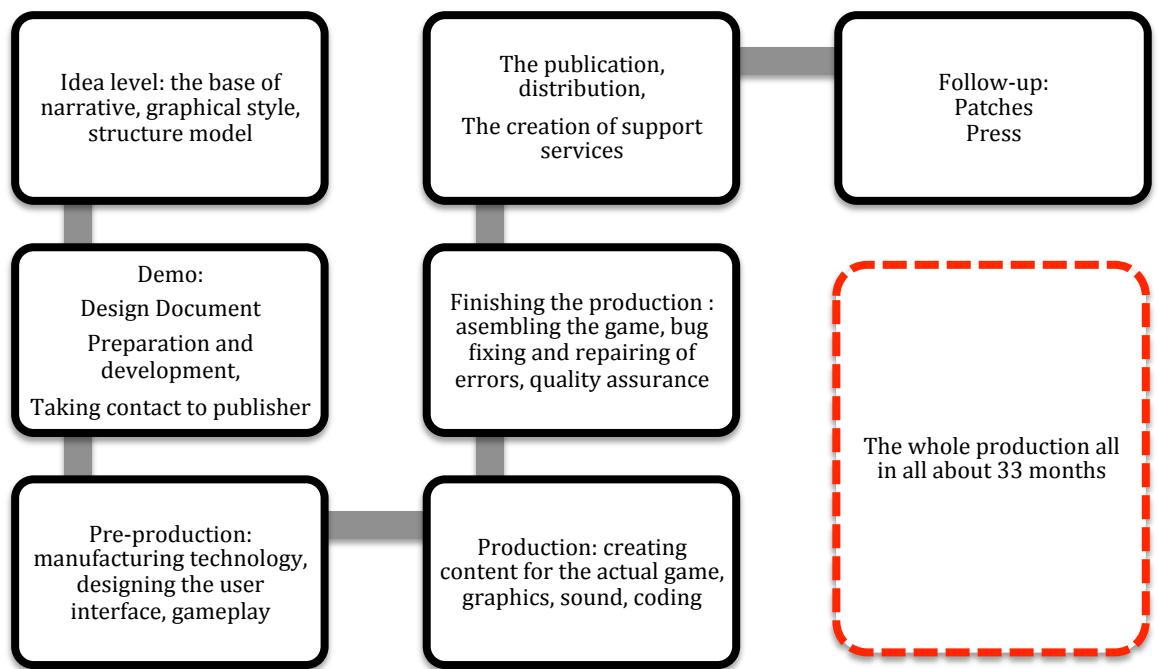
FIGURE 13. The model of game production. (Kalhama 2003, 97.)

The model of game production varies between the companies, but the main goal is the same: to get the game published through a contract or getting the game published through their own channels. The team size for the game development usually sets the guidelines for the developing process.

2.2   Education

Like the industry, game education in Finland is also very young. Finland's very first professionally oriented game education was launched in 2004 by the adult educational centre ARTO (later Adulta). It was followed by the programs in North Karelia College (Outokumpu Pelitalo in 2005) and Kajaani University of Applied Sciences (2006) together with orientation training in a variety of companies around Finland. (Latva & Hiltunen 2009; Haila 2010.) In 2007 Neogames, the Centre of Game Business, conducted a study about the Finnish game industry education and its developmental needs.

Neogames (2008) divided the game education in Finland in to five sectors:

1. Vocational schools for game education. They provide degrees that function as a qualification to work in the gaming industry.

2. Orientated game education worth 5 to 20 study credits. Offered as external courses they may include, for example, 3D modelling, game design, and game programming. .

3. Game industry-oriented research education for students who aim to become researchers on the field of game industry.

4. Further education is a form of education that can have added value to currently employed workers and may include subjects like management training

5. Orientated training in companies.

As most of the educational institutions offering game-related education are, through the Finnish game education network, members of Neogames, the association plays an active role in the development of game-related education and research in Finland. By sharing information and ideas between businesses, schools, and other actors, it ensures that the focus of education keeps up with the changing needs of the games industry.

In Finland the game-related curricula are currently offered by vocational colleges, universities of applied sciences and universities, as can be seen from the list above.

Universities (Bachelor's degrees, 180-210 ECTS credits, and Master's degrees, typically 120 ECTS credits).

- University of Tampere/TRIM/Game Research Lab
- University of Jyväskylä
- Aalto University (MA in New Media)

Universities of Applied Sciences (210–240 ECTS credits)

- Oulu University of Applied Sciences
- Jyväskylä University of Applied Sciences
- Lahti University of Applied Sciences
- Centria University of Applied Sciences
- Kymenlaakso University of Applied Sciences (Game Design and Game Programming)
- Tampere University of Applied Sciences
- Turku University of Applied Sciences
- Helsinki Metropolia University of Applied Sciences
- Kajaani University of Applied Sciences

Vocational Upper Secondary Education and Training

- Kouvola Region Vocational College
- Sataedu
- Oulu Vocational College

- North Karelia College Outokumpu

The gaming industry is often considered to be "an artisan area" where practical experience is crucial. In most cases, especially in the orientated training, the wide-ranging practical doing is missing. Figure 14 shows the "ideal" career path as seen by the game companies. (Neogames 2008.)

FIGURE 14. The "ideal" career path to become a professional game-maker, from the point of view of game companies. (Neogames 2008.)

Neogames conducted a study for the Invest in Finland, Finpro in spring 2007 called *The education in Finnish game industry and its development needs*. The study revealed that almost all game companies in Finland are growth-oriented. The main obstacle to attaining growth is the shortage of skilled workers. Seven out of ten interviewed game companies said that the greatest challenge in maintaining growth is the lack of skilled personnel. The companies told that that the situation is the most difficult regarding skilled programmers.

Here are listed the most common areas that need resources according to the Neogames (2007) study:

Programming

The programmers currently working in the Finnish game industry have their background in the demo scene, the university, or some other IT education program. There has been no actual game programming education in Finland until now. The lack of programmers is caused by various reasons. One of the most important factors is that the software industry has a strong foothold in the present-day Finland. Game

companies compete for the same resources with software companies. In most cases game companies are, due to the size and rapid growth of the field, unable to pay wages that equal those paid by successful and well-established software companies. In addition, the game industry specialist programmer training is not available in sufficient quantities in Finland. (Neogames 2007.)

Visual Art

The visual artists are much more easily available than others types of employees. This is in part because 3D modelling has been taught in Finland since the mid-90s. Some 3D training is also included in the game design requirements for at least on the courses on game graphics. (Neogames 2007.) In addition, graphic design as a profession has been taught in many applied science universities across Finland since the mid-90s.

Audio

Audio making is most often outsourced. This is largely because sound work is cyclical and focuses mostly on the end of the production cycle. In Finland there are several small companies specialising in game audio. New employees in this field are therefore not currently needed. (Neogames 2007.)

Design

Game designers are a relatively small but an essential group in game companies. The game designers envision how a game is made and designed. This requires skills gained from the experience of doing game design projects. The training professional game designers is therefore relatively difficult. (Neogames 2007.)

Production and Management

The companies' growth will raise the need for project, production and business management positions. Also, the international environment poses its own challenges for the required skilled management personnel.

The Finnish game industry education is relatively young. Companies rarely have sufficient understanding of the gaming industry education facilities or their education curricula. Until now the amount of available pre-vocational training has been quite limited. (Neogames 2007.)

In addition, recruiting skilled and game industry experienced people from abroad and from other start-ups has grown considerably. This allows the in-company training period to be as short as possible. In the current competitive situation, recruiting from inside the industry may have a negative impact on the overall growth and disturb the atmosphere of good cooperation. The biggest problems in recruiting from abroad are the difficulty of the process and the high costs. Recruitment from abroad, foreign outsourcing and even doing the whole game development overseas is eventually bound to increase. (Neogames 2007.)

Neogames (2008) states that the field of game education is currently unable to meet the demands of the industry. The demo scene that has traditionally produced workforce for the Finnish game industry is no longer able to do so. This is because the demo scene has been shrinking and because it has largely transformed into a play scene. (Neogames 2008.)

2.3   IGDA survey

International Game Developers Association (IGDA) conducted a study in 2004 titled the *Quality of Life in the Game Industry: Challenges and Best Practices*. Their study listed the challenges the companies' employees had then faced.

The IGDA study showed challenges that can cripple the whole industry. In most cases the loss of efficiency happens in companies where extended overtime and crunches are the norm and people burn themselves out. Once they are burnt out, whether it happens in mid-development or the critical milestone delivery stages, they cannot possibly give their best. (IGDA 2004, 33.) Some people in the industry consider long

working hours, high pressure and the generally poor quality of life as normal, or even the ability to cope with them as signs of strength to be bragged about. (IGDA 2004.) For young career-oriented people fresh out of school, the shortcomings of the industry, with its endemic long hours and a 95% marketplace failure rate, may not always appear obvious or crippling. (IGDA 2004.)

IGDA (2004) states that the video game industry has become a romanticised career choice for young and aspiring programmers, artists, writers, and producers. This phenomenon is not unlike that of the motion picture industry, which has high public exposure and often high rates of pay – although the general public's assumption that game careers provide high salaries, royalties, and stock options are not always exactly truthful. (IGDA 2004, 27.) This kind of phenomenon is also seen in Finland with the media promoting success stories instead of writing about the downfalls of companies or products. One evident reason is that the veterans who have transferred into other businesses easily fade away from the industry scene.

One crucial thing is that it is not only the company that is responsible for the employees' actions. People who want to work in game industry have the opportunity to make their own individual choices. The employee's responsibility is to pick the company that suits his/her needs. The employee needs to be frank with the employer and openly discuss any possible problems and job satisfaction. The employee needs to know when to be flexible without going to extremes. Flexibility needs to be mutual. (IGDA 2004, 29.)

The IGDA listed five reasons why work can become "consuming" instead of "regenerating":

1. Lack of resources: Some organisations are just chronically understaffed.

2. Self-intensification: Individuals are driven into taking on too much responsibility and pushing themselves beyond their limits.

3. Excessive complexity: Jobs require more skills or resources than the individual can bring to bear.

4. Lack of regenerative processes: No time to learn or rest.

5. Not enough complexity: Jobs that don't take advantage of the individual's skills. (IGDA 2004, 12.)

The lack of standard job descriptions: no two game studios can give the exact same responsibilities to their producers, there are no strict borders between the job descriptions of junior, senior and lead programmers, and besides the (partial) exception of the design treatment, neither the game design documentation nor the production process are standardised to any significant extent. Publishers can also vary in the type and description of their employees who work and interface with developers. Patz states that while this ambiguity may be a good thing, from the perspective of job quality and variety, it can also hinder the sourcing and subsequent integration of new employees into the company. (Patz 1997.) While the lack of complexity is very unusual in the game industry, except maybe at the entry level, the other factors of consumption are the business norm instead of being an exception. There are never enough experienced professionals to deal with all the ongoing projects, so "newbies" and junior developers are pushed into roles for which they are not ready (IGDA 2004).

Adams (2003) states that the interactive entertainment industry thrives on enthusiasm. The game industry has traditionally been staffed primarily by young game enthusiasts with a surplus of enthusiasm and dedication, a deficit of real-world work experience and task management skills, and (usually) few binding commitments such as marriage or children. An inability to accurately estimate tasks and schedules, great enthusiasm for the job at hand, and lack of any real disincentive to work all the time: this is a sure recipe for extended, crazy hours. (Adams 2003.)

Adams (2003) mentions that once long hours and brutal crunch times are locked in as both the cultural norm and a "necessary ingredient" to ensure project completion at a given company, they don't go away. But it is not hard for developers to convince themselves otherwise: when the pressure is on and the stakes are high, it can be comforting to be able to tell yourself that you're doing everything possible to

succeed, even if it is not really helping, and is more likely to be hurting productivity over the long haul. When people who learn to make games "the hard way" migrate to other companies or start their own, they bring with them the work practices and development methodologies they have acquired, thus propagating the myth. A large proportion of games under development have hard deadlines, such as the E3 pitch and the Christmas release, which can't be missed without imperilling the project. A hard deadline, combined with an insufficient planning and scheduling process, invariably leads to evenings and weekends in the office. (Adams 2003.)

Docherty (2002) notes that it is important to have control of the production. Overwork leads to ineffectiveness, errors and conflicts. Relying on constant peak of performances, and especially on long hours, is counterproductive. (Docherty 2002.) McConnell (1996) says that when a project is noticed to be out of control. The developers are required to work more overtime is the most common point, when managers and team leaders try to bring the project under control. But overtime is, in itself, a sign that a project is out of control. (McConnell 1996.)

Work organisation and project management are major problem areas according to the IGDA respondents.

- Only 13.5 % of the respondents said that their companies' pre-production schedules and staffing plans were "very accurate" or "sufficiently accurate and flexible to get by with only a minimal amount of crunch time". The most popular answers to this question were "Reasonable in most cases, but occasionally flawed, leading to tense periods" with 38.9 % and "Wishful thinking that will only fit reality if no unforeseen problems arise" with 32.4 %.

- 11.7 % considered their companies' schedule estimates to be so optimistic that they knew they'd be in crunch from Day 1, while 11.9 % believed that they were accurate.

- Feature creep wreaks havoc in schedules in 32 % of the companies. 49 % routinely add features during production but try to minimise their impact on schedules. Only 16 % of the respondents said their companies had formal change control policies.

- Developers are generally happy with their working environment which they characterise as "comfortable" (54 %) and as "effectively promoting teamwork" (35 %). Issues raised include the lack of privacy (34 %) and a noisy work environment (24 %).These are often caused by open floor plans and computers/networks that are in need of upgrading (24 %).

The IGDA study showed that working in game development is by and large considered to be stimulating and better than most of the alternatives. However, it is all too often performed in crippling conditions that make it hard to sustain a high quality of life and lead too many senior developers to leave the industry before producing their best work.

IGDA proposals for better industry practices:

- A conscious effort to minimise overtime.

- Better communication between management and developers.

- Better contracts between individuals, studios, and publishers.

- Better planning and budgeting.

- Better project management practices.

- Better human resource management. (IGDA 2004, 6.)

IGDA's (2004) biggest proposed change is the continuous education of the work force. It is as important to educate the young people who are just starting their careers as it is to educate the company managers. (IGDA 2004, 7.)

IGDA proposals for the support of the family unit at the employer level:

- Health care.

- Family get-togethers.

- Tolerance when a child or spouse is ill or during important life events.

- Reasonable working hours.

- Day care. (IGDA 2004, 28-29.)

IGDA identified 6 key contributing factors to sustaining quality of life at the workplace:

- Meeting basic necessities.

- Hope.

- Self-determination.

- Health and well-being.

- Security.

- Community. (IGDA 2004, 11.)

3   JOB SATISFACTION: THE DEFINITION AND PREVALENCE OF THE PHENOMENON

Job satisfaction is generally defined as the sense towards work and associated factors (Spector 1997). According to Locke (1976), job satisfaction is a positive emotional state gained from the work experience, which is affected by the employee's own values. In addition to emotions, job satisfaction means the attitude towards the work (Schneider 1985, 573). The attitude can be defined as a result of how the work can be seen and the compatibility between the individual and the organisation (Ivancevich, Olelelns & Matterson 1997). Dawis and Lofquist (1984) consider the satisfaction in the employee experience in terms of how well the working environment meets the needs of the employee. If the better working environment meets the requirements of the worker, they are then considered satisfied (Locke 1976, 1297; Dawis & Lofquist 1984).

The key elements are the employee's values and valuations as a basis for assessing their work environment (Lawler 1973). Job satisfaction can be measured (operationalised) in general or in relation to any work or organisational factors (Lease 1998, 154).

The common elements affecting the employee's job satisfaction are:

- Valuation between co-workers and workers and managers.

- Communication between co-workers and managers.

- Co-workers.

- Fringe benefits: additional benefits ranging for example from lunch vouchers to cars.

- Working conditions: the places where people work.

- Nature of work: how people feel their work.

- Organisation.

- Procedures of the organisation: how things are handled in company.

- Payroll: money that people earn from their work.

- Personal growth: the possibility to develop own professional skills.

- Promotion opportunities: the possibility to develop career.

- Recognition: how workers are awarded for doing a good job.

- Security and supervision: having a secure job in the company and mentoring the worker. (Spector 1997.)

Locke (1976) divides the elements of job satisfaction into four categories: salaries, other people, the type of work, and organisational context. Job satisfaction can thus determine the state of the working environment (Dormann & Zapf 2001, 483) and its compatibility with the employee's attitudes (Ivancevich et al 1997). Employees compare their salaries to the job at hand; is the salary enough considering their level of education and experience. The combination of employees' feelings towards co-workers and the communication between people in the organisation are fundamental for satisfaction.

Rapid changes in production and the uncertainty of enduring are the key challenges facing the telecommunication industry (Anttonen & Tammelin 2000, 127). The game industry is a hit-driven industry where success may require rapid changes in the production and design, even when there is no certainty that the changes will guarantee the success of the product.

Job satisfaction is an important factor in measuring the quality of working life, which is again connected to the individual's overall well-being (Spector 1997). Job satisfaction is expected to be a significant factor in the success of the organisation (Eskildsen et al 2003, 122). In short, the employee's well-being will increase the company's productivity and success. Satisfaction is hard to calculate in the companies' turnover numbers because it is a combination of many indirect factors.

The consequences of dissatisfaction could be significant from an organisational and an individual point of view. The studies have shown that the dissatisfaction is connected to the deterioration of well-being, such as depression (Schaubroeck et al 1992, 322), stress (Hakanen 2002, 42; Ostroff 1992, 963) and exhaustion (Anttonen & Tammelin 2000, 127; Hakanen 2002. 42, Lee & Ashford 1993, 20). In addition, job dissatisfaction is connected to the intentions to leave the current job (Carsten & Spector 1987, 374; Trevor 2001, 621) and absenteeism (Hardy, Woods & Wall 2003, 306). It is necessary to develop satisfaction since it is associated with well-being, health, the ability to work (Hakanen 2002, 42) and the satisfaction of life (Judge & Watanabe 1993, 939).

Satisfaction has also been associated with the commitment to work (Ostroff 1992, 963), performance (Iaffaldano & Muchinsky 1985, 233; Judge, Bono, Thoresen & Patton 2001, 376; Petty, Beadles, Lowery, Chapman & Connell 1995, 483) and helpful behaviour towards co-workers or the organisation (organisational citizenship behaviour) (Organ & Konovsky 1989, 157; Schnake 1991, 735).

There are six key contributing factors that enable the sustaining of a high quality of life both at the workplace and elsewhere: meeting basic necessities, hope, self-determination, health and well-being, security, and community (IGDA 2004, 12). The employers must ensure that employees have the basic necessities like tools to do their work and enough coffee or lunch breaks to have enough energy to work. Employees must be given hope to build their career further if needed. The employee must have enough power to take action and be self-determinative. The employer needs to ensure the well-being of the employees by giving them the chance to explicate their needs. The employees need security: they must not be afraid of losing their jobs and the community. This is a requirement for building up the team spirit in the whole company.

4   RESEARCH ISSUES, METHODS AND GOALS

This research will focus on the strategies the growing Finnish game companies could utilise in building up better and healthier working environments. The Finnish Game Industry is booming and more and more companies are entering the field. Big companies from abroad are establishing affiliated companies in Finland and small game companies have grown exponentially within a very short time span. There is a need to react in time to the problems of job satisfaction that have already been seen in game companies abroad. If the problems are not recognised and addressed in time, they may expand and end up causing the destruction of the entire growing game industry in Finland.

The game industry is young in Finland and has not been considered as a serious business or employer. That is the reason why my study is based on a study made by the IGDA (2004). Their study revealed the problems regarding quality of life in the international game industry. The Finnish game industry is part of the international business so there is a risk of encountering similar problems. This is even further enhanced by the fast growth of the industry. This study presents the employees' view on topics similar to those of the IGDA study.

This is a qualitative case study research. The qualitative method allows studying the multi-dimensional topic as comprehensively as possible, when it is impossible to rely solely on quantitative data (Hirsjärvi, Remes & Sajavaara 2009, 160). The main reason for choosing a qualitative method is that it allows the obtaining of a wider perspective on issues. Qualitative method helps to get more detailed information from the participants. Using a questionnaire in this research is economical, and makes it easier to reach the participants (Hirsjärvi & Hurme 2001, 35).

4.1   Research questions

The main research questions in this study are:

- What kinds problems related to the quality of life are common in game development companies?

- What are best practices to avoid or reduce these problems?

The first research question seeks to pinpoint the most common problems related to job satisfaction in game companies. Recognising the problems and challenges of corporate practices allow them to be developed and improved. In this case the company operations are developed and the working conditions of the employees and their job satisfaction are enhanced. There is always room for improvement in all companies.

The second research question aims to map the best practices to avoid or reduce these problems regarding the quality of life. The objective is to show ways of improving the employee satisfaction. The Finnish game industry is reasonably young, the number of the companies is growing, and foreign companies presumably have an increased interest to invest in and/or acquire Finnish game companies (Hiltunen 2012).

Increasing job challenges place new demands on both employees and organisations (Kauppinen et al. 1997). In addition to budgets, the well-being and satisfaction assessment is increasingly being projected to the company's future success (Eskildsen, Kristensen & Westlund 2003, 122).

4.2   Collecting and processing the data

Because of the physical distance between Finnish game companies I the Internet was the easiest, fastest and most cost-effective way to reach the respondents. I created the questionnaire using IBM's SPSS mrInterview software provided by the University of Jyväskylä. I received help from IGDA, the organisation that conducted a similar study in 2004. IGDA (International Game Developers Association) is a non-profit

professional society that is advancing the careers of game developers by connecting members with their peers, promoting professional development, and advocating on issues that affect the developer community. My focus in this research was on the quality of life in Finnish Game Industry, the best contact was IGDA Finland. IGDA Finland is the local Finnish chapter of the IGDA. IGDA Finland promotes the development of careers and professional skills of individual game developers, and individuals of related industries, based in Finland, and to further develop the international recognition of the Finnish game developer community. (IGDA Finland 2013.)

I contacted Sonja Kangas, the Chair of IGDA Finland, via e-mail on January 27, 2012 and they agreed to post my research introduction with a link to the questionnaire on the website of IGDA Finland. That way my research reached the employees of the Finnish gaming industry. In addition to the IGDA Finland website, the questionnaire link was published on social media sites such as Facebook and Twitter. IGDA Finland also posted the questionnaire link to their mailing list. The link to the questionnaire was also published on Play Finland's Facebook page. I also sent it directly to Finnish game companies via e-mail. I got the list of Finnish game companies from the Neogames website. The questionnaire was open to the public from January 17th to March 17th, 2012.

My chosen method for collecting data was the questionnaire sheet. The questionnaire I used was based on a similar survey conducted by the International Game Developers Association (IGDA) in April 2004. It was called the *Quality of Life in the Game Industry: Challenges and Best Practices*. I modified the questionnaire made by IGDA in order to gain more knowledge about the Finnish game industry.

The questionnaire sheet helped me define the quality of life in the Finnish game industry. I used the sheet to gather information from the employees of the Finnish game industry. The people who answered the questionnaire worked on all levels in game companies. The companies were located in different parts of Finland. in addition to being a useful tool for gathering both basic and detailed information from

the employees in the field, it is also very cost effective. The game companies are located in different parts of Finland and the questionnaire was the best way to reach them.

My aim is to show the common issues in the working environments of Finnish game companies. It is important to define the issues of the field. Only when the problems are recognised, can the companies include good practises in their policies and provide a better working environment for the work force by enforcing them.

5   RESULTS

Through the online questionnaire I reached respondents from small start-ups to the biggest game companies in Finland. The respondents represented a variety of different career paths (programming 33.9 %, visual arts 21.4 %, biz & misc 17.9 %, design 14.3 %, production 10.7 % and audio 1.8 %). Also the level of the respondents divided well (leads 41.1 %, seniors 30.4 % and junior/entry-level 28.6 %). These figures give a reasonable overall feeling of the Finnish game companies and the state of their employees.

5.1   Demographic data

Replies to the questionnaire were given by 56 people. 78 % of them (N=44) were male and 21.4 % of them (N=12) were female. The demographic questions reveal the respondents to be rather young with their age being: 8.9 % (N=5) 20–24, 37.5 % (N=21) 25–29, 28.6 % (N=16) 30–34, 17.9 % (N=10) 35–39 and 5.4 % (N=3) were 40–49. Only 1.8 % (N=1) of the respondents were 50 years or older. The industry has traditionally been dominated by men but in Finland the amount of female workers is on the rise.

19.6 % (N=11) of the people moved to Finland for work and the remaining 80.4 % (N=45) were already in Finland. This reveals the need for experienced work force; companies are already forced to recruit from abroad. The schools in Finland are only now starting to see the potential in the game industry, so the supply of qualified work force does not yet match the demand. The shortage of industry veterans is notable: seniors and leads are very much needed for a variety of tasks. The respondents represented 7 different nationalities in addition to Finnish. This shows that the game industry as a working environment is in itself international. In most cases the working language is English, which is not that big of a problem in Finland but can sometimes lead to misunderstandings.

Most of the respondents are in a serious relationship. Questionnaire showed that 50 % (N=28) were married or had a live-in partner, 26.8 % (N=15) lived alone in a long-term relationship and the remaining 23.2 % (N=13) were single. Most of the respondents did not have children 76.8 % (N=43). 76.9% of the respondents (and 82.9% of female respondents) of the IGDA study (2004, 15) did not have children. This could mean that when people get older and start families, their priorities will change. The need for job security will increase and the policies regarding working times will be discussed more often.

The companies the respondents represented were located in East Finland 5.4 % (N=3), West Finland 7.1 % (N=4), North Finland 1.8 % (N=1) and South Finland 85.7 % (N=48). This shows that the game industry in Finland is strongest in the capital area, but with the help of governmental funding and the school systems providing suitable teaching, it has the conditions for growth in other areas too.

28.6 % (N=16) of the respondents have been working for the game industry for 2–5 years, 26.8 % (N=15) for less than 2 years, 21.4 % (N=12) for 5–8 years and 12.5 % (N=7) 8–12 years. 7.1 % (N=4) are still students or trying to get their first paying job. Only 3.6% (N=2) of the respondents had been working for the industry for over 12 years. These details illuminate the current state of the Finnish game industry. The industry is young and there are not that many veterans with long career paths in the field. Also, a reasonably large part of the field in Finland consists of start-up companies with new employees. A comparison to the IGDA study reveals the scene in Finland to be pretty similar to the global one. The respondents of the IGDA study (2004) were young, with 33.8% of respondents being between 25 and 29 years of age. Only 18.4% were over 35. IGDA noted that the respondents were on the early stages of their career with 74.4% of respondents having worked for the industry for 8 years or less with 2–5 years being the most common response. IGDA's study shows that working in the industry for 8 years is still considered as being on an early stage, whereas in Finland 8 years is a long career. (IGDA 2004, 15.)

Asked about the respondent's current employment situation, 14.3 % (N=8) replied they were the studio manager or owner, 69.6 % (N=39) were full-time, permanent employees of a game development studio, 3.6 % (N=2) were part-time employees of a game development studio, 3.6 % (N=2) were freelancers working on multiple projects, 1.8 % (N=1) were independent developers working on games in their spare time, 5.4 % (N=3) were students and 1.8 % (N=1) were currently unemployed and looking for work. Because this study was directed at game companies instead of indie developers, the amount of freelancers and indie developers remained rather low.

Most of the respondents, 33.9% (N=19), were programmers. Others worked in visual arts 21.4 % (N=12), design 14.3 % (N=8), production 10.7 % (N=6), and business and miscellaneous 17.9 % (N=10). Only one respondent worked in the audio sector. (See Figure 15.) The respondent group is divided into leads, senior and juniors workers. The majority of the respondents, 41.1 % (N=23), were leads. The rest, 30.4 % (N=17), were seniors or on junior/entry-level, 28.6 % (N=16).
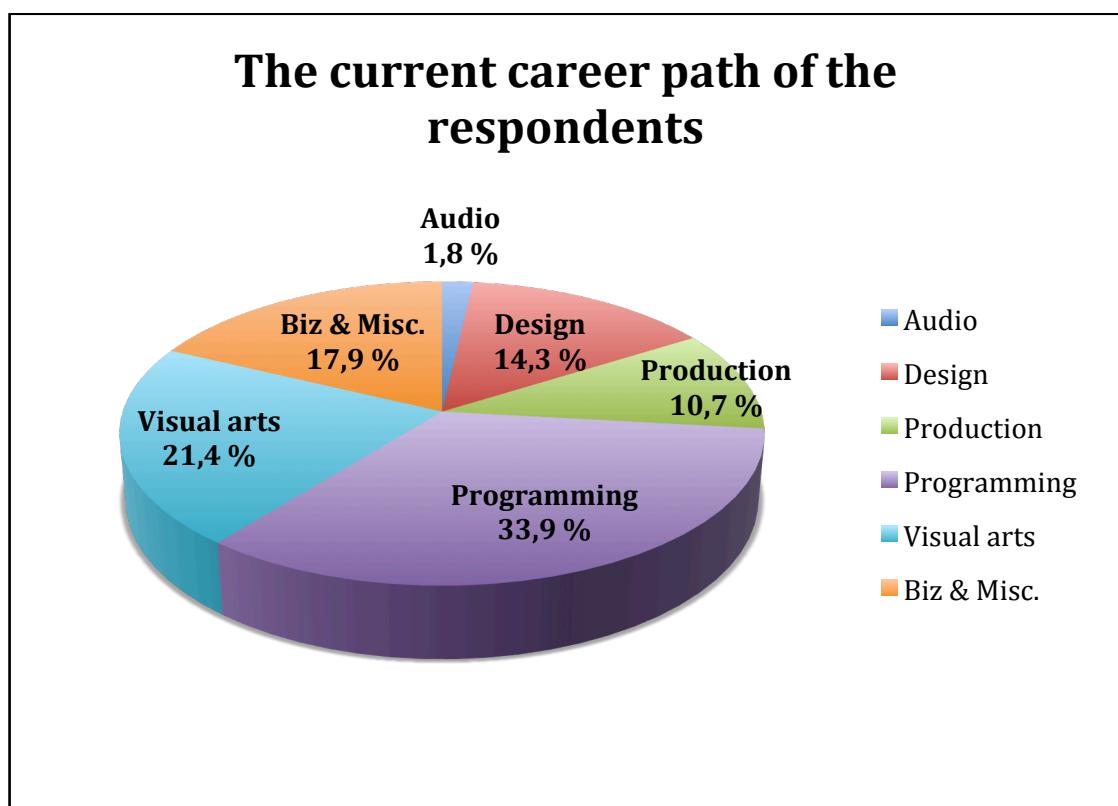

FIGURE 15. The current career path of the respondents.

The questionnaire shows the average level of experience of the developers to be between two to five years, 48.2 % (N=27). 23.2 % (N=13) answered five to ten years, 19.6 % (N=11) had worked between one to two years and only 5.4 % (N=3) had over ten years of experience. The experience of 3.6 % (N=2) of the respondents was less than a year. According to the majority of the answers, the average experience of the project leads (producer, lead programmer, lead artist, lead designer) at the company was five to ten years with 37.5 % (N=21). 37.5 % (N=21) answered two to five years, 14.3 % (N=8) one to two years, 7.1 % (N=4) over ten years and 3.6 % (N=2) said less than a year.

Most, 32.1 % (N=18), respondents describes the game company they are currently working for as a mid-sized studio usually working on 2–3 projects at the same time. 25 % (N=14) answered that it is small studio with a single project team. 30.4 % (N=17) answered that they are employed by a large studio and are usually working on four or more projects simultaneously. 5.4 % (N=3) said that they are freelancers or contractors and 1.8 % (N=1) answered that they work part-time for an independent team. This wraps up the overall picture of the Finnish Game scene.

5.2   General satisfaction

For a question regarding general satisfaction, the respondents were asked to describe how satisfied they are with the game development career in general, on a scale of 1 to 5 with 1 being the lowest and 5 being the highest. The respondents' answers are shown on Figure 16. Most of the respondents were satisfied, 44.6 % (N=25), or strongly satisfied, 28.6 % (N=16), with their career.

	1. Strongly not satisfied	2. Not satisfied	3. Neither satisfied nor not satisfied	4. Satisfied	5. Strongly satisfied
I am satisfied with my game development career in general	2 (3.6 %)	4 (7.1 %)	9 (16.1 %)	25 (44.6 %)	16 (28.6 %)

FIGURE 16. Satisfaction with the game development career in general.

When asked how long is the employee willing to stay in the industry, the most popular answer was, "I will probably stay in games for entire career", at 48.2 % (N=27). 20.8 % (N=13) intended to leave the industry in 2–5 years and 17.9 % (N=10) in 5–10 years. An interesting thing is that 10.7 % (N=6) of the respondents said they would look for a job in another field within 2 years. The answers show that a position in the game industry is considered as just one possibility among a choice of careers.

Asked what the respondents would change in their game development career were they given the chance to change one thing, most of them, 35.7 % (N=20), answered that they would earn more. 28.6 % (N=16) would work on more interesting projects, 10.7 % (N=6) would like to work shorter hours, 10.7 % (N=6) would like to take on greater responsibilities, 5.4 % (N=3) would like to get more job stability and 8.9 % (N=5) would change nothing.

According to the respondents, the leading cause of stress for them and their co-workers is the tightness of ship dates, as was stated by 42.9 % (N=27). This was the most popular answer on every career level. Another cause of stress were bad relationships between management and developers, 12.5 % (N=7), uncertainty of the next project, 10.7 % (N=6), and the companies' financial problems, 8.3 % (N=4). 17.9 % (N=10) of all the respondents felt that there are no evident causes of stress and that everything is fine in their company. In addition to these, the respondents mentioned the following causes of stress: finishing indie projects, communication with the headquarters located in another country, and the company strategy changes.

Respondents were also asked what their current (or most recent) spouse, boyfriend or girlfriend would say about their game development career. The answers were given on a scale of 1 to 5 with 1 being the lowest, and can be seen on Figure 17.

	1. Strongly disagree	2. Disagree	3. Neither agree nor disagree	4. Agree	5. Strongly agree
You work too much and don't spend enough time with me and/or the kids.	6 (10.7 %)	15 (26.8 %)	16 (28.6 %)	14 (25 %)	5 (8.9 %)
You are always stressed out.	4 (7.1 %)	23 (41.1 %)	15 (26.8 %)	12 (21.4 %)	2 (3.6 %)
You don't make enough money.	9 (16.1 %)	13 (23.2 %)	13 (23.2 %)	15 (26.8 %)	6 (10.7 %)
You seem so happy; it's great!	2 (3.6 %)	8 (14.3 %)	16 (28.6 %)	24 (42.9 %)	6 (10.7 %)
When are you going to get a real job?	35 (62.5 %)	13 (23.2 %)	5 (8.9 %)	3 (5.4 %)	–
I don't like the content of the games you work on.	27 (48.2 %)	12 (21.4 %)	13 (23.2 %)	3 (5.4 %)	1 (1.8 %)
I wish I had a job like that.	5 (8.9 %)	8 (14.3 %)	19 (33.9 %)	19 (33.9 %)	5 (8.9 %)

FIGURE 17. What would a spouse or a partner say about their game development career?

The answers show that 8.9 % (N=5) of the respondents "strongly agreed" and 25 % (N=14) "agreed" that their spouses would be likely to say they work too much and don't spend enough time with their families. 3.6 % (N=2) of the respondents "strongly agreed" and 21.4 % (N=12) "agreed" that their spouses complain about them always being stressed out. These answers show that almost a quarter of the respondents feel like their work affects their family life negatively. Tight schedules and working overtime can lead into a situation in which a large portion of the waking hours is spent at the office. Judging by this chart, a career in game industry is generally approved of. A question like "what your spouse/boy- or girlfriend would

say?" may not necessarily be reliable, but a question like that will certainly provoke a deeper reaction than simply asking for the respondent's own opinion.

5.3   Job stability

The respondents were asked about being laid off from a game development job. Most of the respondents, 71.4 % (N=40), have never been laid off from a job. 12.5% (N=7) of respondents answered that they were laid off when their projects were cancelled while the company stayed in business. 10.7 % (N=6) of the respondents had been laid off when the company went out of business or their local studio was closed. Only 5.4 % (N=3) had been laid off at the end of a project that shipped. Because a reasonable portion of the respondents are at an early stage of their careers, they may not yet have the experience of getting laid off from a game development job.

Respondents were asked if they have ever quit a project midstream. Most of the respondents, 67.9 % (N=38), answered that they have never quit a project midstream. Reasons for quitting a project midstream were a feeling that the project will fail, 12.5 % (N=7), conflict with management or co-workers, 7.1 % (N=4), and finding a better job elsewhere. 5.4 % (N=3). Other reasons for quitting were the founding of a new company and the lack of resources and long development times.

> *"Due to the lack of resources and long development times."*
> Respondent number 3.

> *"The project was cancelled by the publisher holding the rights to it."*
> Respondent number 20.

> *"Yes, because I felt that the project was going to fail and because I*
> *founded my own studio."* Respondent number 35.

The transition between projects varies depending on the company. Most of the respondents, 85.7 % (N=48), answered that they usually have new work lined up before a project is completed. 10.7 % (N=6) of the respondents usually have significant downtime between projects, but the company keeps employees on the payroll during these periods. Only 4.2 % (N=2) of the respondents answered that the company only hires workers for projects and lays them off once the project is completed.

Finnish game companies are still relatively young so it is rare to find someone who has worked for more than 5 years in the same company. The answers revealed that only 8.9 % (N=5) of the respondents have been working for more than five years in the same company. Most of the respondents, 53.6 % (N=30), have been working in the same company from two to five years. 16.1 % (N=9) of the respondents have been working between one and two years. 21.4 % (N=12) of the respondents have been working in the same company for less than a year.

Most of the respondents feel that they lack clear career plans. 42.9 % (N=24) answered, "No, I'll just see what comes". 23.2 % (N=13) answered that they do have a clear plan and they feel that their bosses actively support their development. 17.9% (N=10) answered that it does not matter if they have a clear plan, because it is difficult to make plans in this industry. 16.1 % (N=9) answered that they do have a clear plan, but they need to pursue in a clandestine manner because they believe the company would rather have them stay at the current level. 16.1% is a significant amount. This can be a problem for start-up companies that cannot provide higher positions and a large portion of Finnish game companies are still at the start-up stage. At the same time it is curious why it would not be in the companies' best interest to let the workers develop themselves if there is a need to recruit senior staff and leads from abroad.

5.4   Work load

The respondents were asked how many hours they work for in a regular working week. Most of the respondents, 73.2 % (N=37), work for 35–45 hours, 12.5 % of the respondents, (N=7), work for less than 35 hours. 8.9 % (N=5) work for 46–55 hours and 5.4 % (N=3) work for more than 55 hours. See Figure 18.
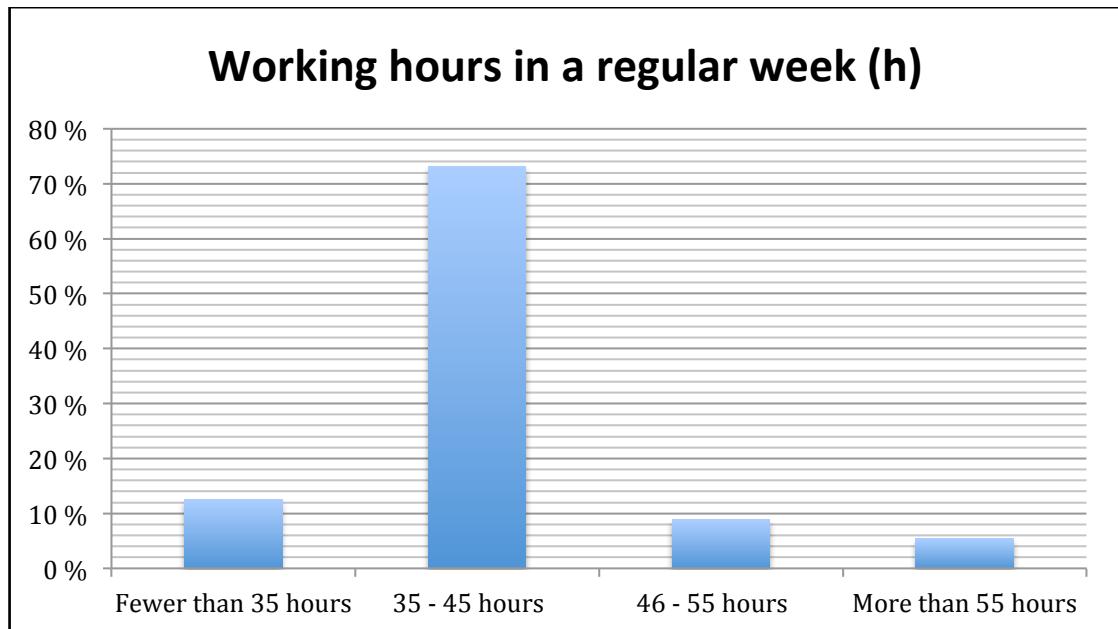
FIGURE 18. Working hours in a regular week (h).

The respondents were asked how they consider their working week to compare to those of their colleagues. Most of the respondents, 66.1 % (N=37), tend to work about the same number of hours as their colleagues. 17.9 % (N=10) work less and 16.1 % (N=9) work more than their colleagues.

Compensation for overtime varies between the companies. Most of the respondents, 57.1 % (N=32), answered that they count all hours and get an equal amount of time off. 25 % (N=14) of the respondents answered that their company does not compensate for overtime. 16.1% (N=9) answered that their company pay for overtime at the employee's usual hourly rate. 12.5 % (N=7) answered that their company does compensate with some amount of time off at the end of a project but

they don't count hours, and only 3.6% (N=2) answered that they get paid for overtime at a premium rate.

> *"Default is time off for extra hours. With leads and management this is often impossible, in which case it's paid for in salary in substantial chunks (months)."* Respondent number 42.

> *"Employees count their own hours and take time off based on their own calculations and conscience."* Respondent number 5.

> *"Overtime is standard in any industry in my type of position."* Respondent number 2.

The respondents were asked if their companies have "crunch times". Crunch time refers to an attempt to make a slipped schedule meet the deadline, leading most members of the team to work longer hours than usually. Almost a quarter of the respondents, 23.2% (N=13), answered that they do not have "crunch times" at all. Most of the respondents, 44.6 % (N=25), answered that they have "crunch times" only during final beta testing. 26.8 % (N=15) answered that they have "crunch times" at every milestone.

> *"I can't switch off my work mode when I get home. I keep thinking work things 24/7."* Respondent number 12.

> *"As a small studio we even enjoy crunches, as we do it more in internal game jam style (short few day bursts where everybody stays at the office for more than 24 hours at one go)."* Respondent number 37.

> *"Crunches are taken for granted without asking any questions. Employees are expected to work as long as it's takes to finish the product. This can mean long hours because the schedules are almost*

always too tight to finish the product in normal working hours."
Respondent number 7.

"They are a necessary evil." Respondent number 10.

"They shrug them off as being "part of the games industry" while they are obviously caused by a lack of skill in management." Respondent number 45.

According to the respondents, crunch time typically lasts from less than a week to two weeks. 46.4 % (N=26) of respondents answered that in their company "crunch time" typically lasts for less than a week. 41.1 % (N=23) answered that the "crunch time" lasts between one to two weeks. 8.9 % (N=5) answered that "crunch time" lasts between two weeks and a month. 3.6 % (N=2) answered that it lasts between one to two months.

Most of the respondents, 30.4 % (N=17), typically work for 55–65 hours during a crunch week. 26.8 % (N=15) work for 46–55 hours. 26.8 % (N=15) work for 35–45 hours. 5.4 % (N=3) answered 65–80 hours. Only one respondent 1.8 % (N=1) answered that they work for more than 80 hours. 8.9 % (N=5) answered that they work for less than 35 hours. Figure 19 shows how the respondents have calculated their working hours. This figure does not differentiate between the amount of hours the employees have worked at home and at the office.

Working hours in a crunch week (h)
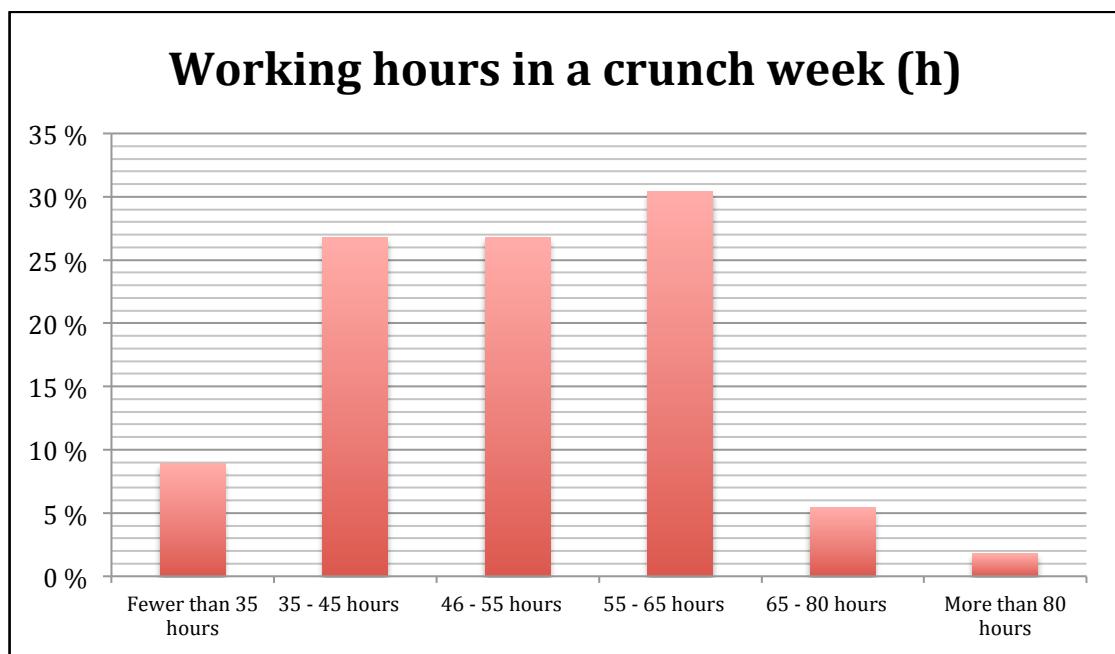
FIGURE 19. Working hours in a crunch week (h).

A question regarding the staffing situation revealed that most of the respondents, 64.3 % (N=36), feel they could use some more people or that a special skill is needed in some areas every once in a while. 16.1 % (N=9) answered that they often have to work extra hours, learn on the go and/or improvise because they can't hire people with all the needed skills. 7.1 % (N=4) answered that they are chronically understaffed and production is always stressful. 12.5 % (N=7) answered that they have all the people they need to make a production smooth and painless.

The policy regarding release dates varies between companies. 42.9 % (N=24) of the respondents said that they are under significant pressure to release by Christmas or another fixed date, but they will survive even if they slip by a couple of months. 37.5 % (N=21) answered that they ship when the game is ready, no matter how long it takes. Quality comes first. 19.6 % (N=11) said that they absolutely, positively must ship by a certain fixed date or get destroyed at the market place.

5.5   Work organisation

Preparation for the pre-production, including schedules and staffing requirements, varies between the companies. The respondents were asked to answer a question about the accuracy of their company's preparation for pre-production. 32.1 % (N=18) answered that preparations during pre-production is reasonable in most cases but occasionally flawed and leading to tense periods. 30.4 % (N=17) answered that it is sufficiently accurate and flexible to get by with only a minimal amount of crunch time. Almost a quarter of all respondents (23.2 %, N=13) answered that preparations for pre-production is wishful thinking that will only fit reality if no unforeseen problems arise. 7.1 % (N=4) answered that it is so optimistic that they know they will be in crunch from day 1. In the IGDA study only 13.5 % of the respondents said that their preparation for pre-production is accurate. This seems to be organised a bit better in Finnish companies but the amount of "wishful thinking" and "crunch from day 1" answers are relatively similar. Of the IGDA respondents 32.4 % mentioned that pre-production is wishful thinking that will only fit reality if no unforeseen problems arise and 11.7 % respondents mentioned that they would be in crunch from day 1. This shows that preparations in pre-production and schedule management is a rising problem in Finnish game companies.

The respondents were asked how their companies control changes to the game design during production. Most of the respondents, 64.3 % (N=36), answered that they often add features when someone in the team comes up with a good idea or sees something great in a competing product, but they try to be careful not to affect the schedule too much. 16.1 % (N=9) answered that feature creep, people demanding more and more features in the game, is a big problem for them and tends to mess up the entire schedule. 16.1 % (N=9) answered that they have a formal change control policy that minimises changes. Only 3.6 % (N=2) of the respondents answered that they never change anything once the production begins. According to the IGDA study, 16% of the respondents work in a company with a formal change control policy to minimise changes. This is close to the situation in Finnish companies. This type of a "new good idea" implementation may not be a bad thing

when making new and interesting products, but there should be policies and preparation in the schedule for making additional implementations.

The average experience level of the project leads were 5–10 years, 37.5 % (N=21), and 2-5 years, 37.5 % (N=21). There were some project leads with less experience: 1–2 years, 14.3 % (N=8), or less than a year, 3.6 % (N=2). Only 7.1 % (N=4) answered that the experience level of the project leads is over 10 years. The result is understandable, because the Finnish game industry itself is relatively young. People in lead positions in Finland have not yet been able to achieve work experience. It is a positive thing that the game industry can advance the employees' careers on the early stages. The impact is negative when a person is forced to take a lead position when he is not yet ready for it. It can cause extra stress for the person and eventually the timetable of the project is shattered with the lack of mentoring and the pressure to manage in a new position. Orientated training with a mentor in the company could minimise the negative impact. Additional educational training in universities or universities of applied sciences with hands-on training could help with the issue.

> *"Unclear responsibilities and authority, lacking soft skills in*
> *management, little to no attention given to HR."* Respondent number 4.

5.6 Job quality

The respondents were asked to answer how they would characterise their working environment. Most of the respondents, 71.4 % (N=40), said that the working environment is comfortable and 53.6 % (N=30) found that the working environment effectively promotes teamwork. The most negative characteristics, 21.4 % (N=12), were noise and the lack of privacy. In most cases the working environment has all the necessary basic functions but the environment could also be more innovative. 54% of the IGDA respondents said that the working environment is comfortable so in both cases the environment is considered to meet the demands well enough. But in both studies the lack of privacy (34 % IGDA) and noise (24 % IGDA) at the office are seen as the biggest problems of the working environment. Some enjoy open offices more

than others. The employees should be given the opportunity to choose the type of working area they prefer, when possible. An evident reason for one room "open offices" in most cases is that they are cheaper. Start-ups need to be careful with money.

> *"Functional" as in it's warm and there's running water and electricity and net access. It's not creativity inspiring or team oriented."* Respondent number 4.

> *"Quite innovative and inspiring. Open communication is encouraged."* Respondent number 11.

The respondents were asked to rate the level of challenge they experience at their current job. Most respondents, 41.1 % (N=23), answered that they are constantly challenged and they love it. 32.1 % (N=18) answered that their job is usually interesting with manageable amounts of drudgery. 14.3 % (N=8) answered that they are overqualified for the work they do and that they are bored or frustrated most of the time. 10.7 % (N=6) answered that they have mastered their work and are ready to take on new challenges but they are in no hurry to change jobs. Only 1.8 % (N=1) of the respondents said that they are overwhelmed with complexity and that the job is too hard. If people are overqualified for the work they do, the complexity and challenges do not meet their demands. It can quickly lead into a situation where people leave the industry before giving their best input. It is important to educate the employees and offer them the possibility to upgrade their career level every now and then. This is the only way to give employees the possibility to get more challenges when needed.

> *"My cause of stress is that I don't have any interesting nor enough work/projects, because of that I don't get experience."* Respondent number 18.

5.7   Employment and benefits in the game industry

Almost half of the respondents, 44.6 % (N=25), answered that getting the first job in the game industry was easy: it took only 3 months or less. 12.5 % (N=7) said it was moderately hard: it took 3 to 6 months. For 3.6 % (N=2) getting the first job was hard: it took over 6 months of effort to get it. Getting the first job after more than 6 months may not be a long time compared to other fields, but it can be considered long when there is a lack of workers in the game industry.

The ways to get the first game development job were many. The most common way was through an internship or a work-study program with 30.4 % (N=17). Other ways were the recommendation of a friend, 23.2 % (N=13), answering an ad, 19.6 % (N=11), and starting their own company, 10.7 % (N=6). Jobs were also found at a job fair, by being sub-contracted, by an open application, through the Pingstate.nu recruitment forum, and having been headhunted through the LinkedIn website. That 30.4% of the respondents got their jobs through internship shows how important it is to have hands-on experience. It also shows how important it is for the companies to find a person that fits a specific team.

The respondents were asked to describe their experiences after having joined the industry, and most of the respondents (N=35, 62.5 %) answered that they did not have a mentor. 19.6 % (N=11) said that they had a mentor and it helped a little. Also, 35.7 % (N=20) answered that developing games was only one career option among others. 23.2 % (N=13) answered that they desperately wanted to develop games; it was their only choice. 13 (23.2 %) said that they often felt they were "paying dues" with grunt work instead of being challenged to use their full potential. 9 (16.1 %) answered that at some point during the first year, they considered leaving the industry. The amount, 35.7 %, that considered developing games as a career option among others could be the result of the game industry having become popular among students. It is no longer just passion that drives people to develop games. The media describes the staff on the game industry as more passion-driven than it actually is.

When asked about the type of additional compensation received, 30.4 % (N=17) of the respondents answered that they don't get additional compensation or that they get an annual bonus, 41.1 % (N=23). The third most popular option, 16.1 % (N=9), were profit sharing and project/title bonuses. 10.7 % (N=6) answered that they would have pension/employer contribution to a retirement plan. Only a few answered that they would get stock options or royalties.

78.6 % (N=44) of the respondents answered that they have medical insurance as a benefit and only 7.1 % (N=4) of the respondents have dental care. Other benefits mentioned were gym discounts or memberships, lunch vouchers, cell phones, Internet connection at home, free drinks and free sport tickets. 16.7% (N=6) answered that they have no benefits.

6 CONCLUSION

Respondents are generally satisfied with the industry. This study shows that the factors that most need attention in order to improve job satisfaction are development policies and appreciation of the staff, goal-oriented management, support and communication between employees within the organisation. These are issues that need to be addressed if the satisfaction for work and towards the organisation is to be improved.

In Finland the working conditions in the game industry vary widely; dedication to a game industry career may not be as great a choice as might be expected or at all as it is portrayed in the media. Relatively large part of the whole industry in Finland is run by start-up companies that have no people with human resource and management skills on board. Overall the research shows that there is dissatisfaction with salary, lack of overtime compensation and lack of resources. More skilled workers are needed but there are no resources for hiring new skilled workers. Getting the first game industry job can be tricky because most of the current companies are small and the need for experienced multitalented workers is bigger than the need for highly specialised ones. Small companies do not have the resources to coach new workers. Also, small companies cannot that easily provide specific development areas within which to work.

In sum, a relatively low satisfaction level can be a significant risk for the well-being of the employee and the effectiveness of the organisation. In addition, it can be assumed that the results of this study are to a significant extent related to the situation of the organisation: the past and possible future changes in the organisation, economic demands and intense competition in the IT sector. Investing in leadership development, communication and culture in order to enhance the identification and intervention would be necessary when there are changes in the company, so that the organisation's operational efficiency and staff satisfaction can be increased.

According to this research, the tight ship dates and too optimistic scheduling are the biggest causes for stress in the development and may lead into unnecessary crunching. In the course of time, long working hours with no compensation cannot produce good results at any level. According to McConnell (1996) when a project is perceived to be out of control, requiring developers to work overtime is one of the most common things managers and team leads do to bring the project under control. But overtime is, in itself, a sign that a project is out of control. (McConnell 1996.)

Docherty et al (2002) add that overwork leads to ineffectiveness, errant behaviour, and conflicts. A tired company turns inward and concentrates on defences meant to contain collective anxiety – in other words, rituals replace flexibility, and relationships between the team and everyone else (publisher, management, quality assurance, the rest of the company) deteriorate into open warfare. Relying on constant peak performance, and especially on long hours, is absolutely counterproductive. (Docherty et al 2002.) IGDA (2004) states that in companies where extended overtime and crunches are the norm, people get burnt out. Once they are burnt out, whether it happens in mid-development or in critical milestone delivery stages, they can't possibly be giving their best. (IGDA 2004, 33.)

The Finnish Game companies' turnover has grown steadily over the years but the number of their employees has not, however, increased in proportion. Good examples are companies like Supercell (successful games: *Hay Day* & *Clash of Clans*) and Frogmind (successful game: *Badland*). Both have made success in a short period of time but their number of employees has remained relatively small compared to their market value. This is an effect of the "garage hacker" type of working. Usually these kinds of companies are founded by small groups of friends. There are no standard policies to recruit new persons. Taking a new person into a team requires a relatively large amount of trust on the new person's skills and personality. When companies grow from a small team into a big player on the game market, the need for professionals explodes. Even when the need is huge, no one will hire just anyone; they require ready and fully capable professionals with experience of the field. The

Finnish game industry is still young and this is one big reason why the need to recruit professionals creates problems.

The game industry -oriented training is now being implemented around Finland in order to fix this disparity. These students will, however, be full-fledged professionals only in about 3–5 years, when the rocket rise may no longer be an issue.

The Finnish game industry and its exports require professional workers. The Finnish game industry is currently suffering from a shortage of ready and capable professionals, even though the game industry is a fast growing industrial and export sector.

Neogames (2008) estimated that the gaming industry would need approximately 150 new workers per year between 2008 and 2012. The value of the Finnish game industry currently grows about 20 % per year, but the shortage of specialists threatens the growth (Neogames 2008).

There is a need to increase the school study program opportunities and financial support for the game companies for educational purposes. This would create more professionals for the field. Schools and game companies need more cooperation so that they could both create more skilled workers and jobs in the field. This is one way to meet the demands of the growing industry.

Demos created by individuals as a hobby used to be sufficient to provide the game companies with a capable workforce. The number of professional people will stay small unless the education for the fast developing game industry is increased.

The overall feeling gained from the survey is that people working in the Finnish industry are in general satisfied with their game development career. One very important reason for this is the size of the companies in Finland. Most Finnish game companies are still small compared to their international counterparts. The research

conducted by Neogames in 2010 revealed that only 3 out of 59 companies that answered their survey had more than 51 employees. The chain of command is short and the distance between the developers and the manager is short.

This study shows that the industry developers are young and in Finland the industry itself is young. The industry also needs to compete with rival industries to ensure that the senior level remains in the companies. Also when the younger generation of developers gets in a position where they would like to have a family and a steady job, their priorities will change. Game companies need to find solutions to deal with these issues and take these things seriously in order to get people to stay in the companies until their retirement.

There is a lack of mentoring, work orientation and shared experiences with the industry veterans. This is a big issue in the industry since there are not that many industry veterans. The shortage of experienced managers and leads can provide the need to promote people into positions for which they may not yet be ready. This kind of pressure can lead into situations that are harmful for the new lead and the team. In most cases this means poor scheduling and personnel management. There is a fine line between giving people positions that are challenging enough and giving lead positions too early. The importance of human resource management skills will increase in the game industry in the near future.

The transition between projects varies depending on the company. According to this study, the most common practice is to have new work lined up before a project is completed. If there is a tight ship date on the current project and a new project is already waiting to be launched, it is necessary to grant the staff with enough time to end the project. The transition time between projects needs to be long enough for relaxation, gaining strength and evaluating everyone's team and work. Being able to cascade project teams can provide more time between transitions with the same team. Overload of work decreases, burnouts can be avoided and motivation for the next project is bound to be better.

 A comparison to a similar job satisfaction study made for the IT and telecommunication sector reveals that the difference in job satisfaction between the game industry and other IT sector industries in Finland is not that big. Pitkänen (2005) states in her study that in general the respondents were satisfied, but in both cases the problems were caused by dissatisfaction towards organisational problems like poor management or the employees feeling that they are overqualified for their jobs. (Pitkänen 2005.) This can be taken to mean that the working environment in game companies has problems similar to other industries, but the difference is in the attitudes towards these problems, like whether the issues are seen as problems or as signs of strength to be bragged about. This research revealed that the bragging fact is still very relevant when it comes to discussing "crunch time". Some respondents considered crunch time as a method of working. The respondents described the crunch method as "Game Jams" where people try to develop games or ideas with a limited amount of time. This may originate in the hobby-based enthusiasm-orientated working habits. Working like this is not considered as a problem but as another form of working. This type of working may suit people that have no other commitments like kids and a family. It certainly will not work in the long run because career priorities will change. This can be fixed with good management skills and formal policies at the company.

To achieve better tomorrow, there is a need to constantly educate the managers, leads, seniors and juniors, which will lead into better communication between management and developers. Managers and leads need to have experience in and education for project management practises to be able to better plan and budget (IGDA 2004, 6-7). Without having the fear of losing their job or being unable to bring food to the table, the employees will produce better results.

Finnish game companies need mentoring and work orientation. That is the only way to roll in the new talents and would also help to keep good workers from leaving. It is very important not to make new employees feel after the first two years that they are in the wrong place and cannot put their skills into good use. The shared experiences of veteran teams are important for the cohesion and success of new

teams. This would help avoid losing talents for other industries, and when new projects are launched, there would be no need to start everything from the scratch.

According to this study, more than one fourth of the respondents feel that their work has negative effects on their family life. The answers show that 5 (8.9 %) respondents "strongly agreed" and 14 (25 %) "agreed" that their spouses would be likely to say they work too much and don't spend enough time with their families. The corresponding results of an earlier study (IGDA 2004) were that 61.5 % of the respondents said their spouses would be likely to say they work too much and don't spend enough time with their families. According to the IGDA study, the situation is not that bad in Finnish Game companies as it is globally. The figures however show that this is an issue that might gain importance when the industry and the people in the industry get older. Companies can develop family friendly practises for the workers in the companies and take action for this issue before it turns into real a problem in the field. Career and work require a lot of the employee's time, especially close to deadlines. Companies demand flexibility from employees during crunches and close to deadlines thus keeping them away from their families. The companies could improve the employees' quality of life with family-friendly practices, even by just being flexible when a child or a spouse is ill or at the time of important life events. Support can be provided by arranging family get-togethers, day care, and health care (IGDA 2004, 28-29). At least the employer should arrange reasonable working hours and make a conscious effort to minimise overtime. Family and career can both create pressure for the worker. Matching these two can sometimes be difficult, so it is very important to support the family unit from the employer's side.

There are lots of economical changes in the field and the demand for employees is high. There remains a need to study the whole industry from the point of view of human resources. The game industry does not appear separately in the official statistics. In the official statistics most game companies are listed under "other software production and consulting". This makes it difficult to get an accurate picture of the evolution of the game industry in Finland. (Peltoniemi 2009, 166-167.)

The Finnish game industry is still young and growing. Education preparing students for game making is still very rare in Finland. Now is the time for universities and applied science universities to start to look for the opportunities to establish new departments and degrees for game making. One key element is to avoid educating too many game industry professionals. The amount of degrees needs to match with future demand.

7 REFERENCES

Books

Adams, E., Break into the Game Industry, McGraw-Hill, 2003.

Anttonen & Tammelin. 2000. Tyky-toiminta elektroniikka-alan pientyöpaikoilla – tuloksia ja kokemuksia. Teoksessa M. Huuskonen, H. Laitinen, & M. Bergström (toim.), Työkyky yksilön, pienyrityksen ja yhteiskunnan menestystekijänä. Helsinki: Työterveyslaitos.

Carsten, J. M., & Spector, P. E. 1987. Unemployment, job satisfaction, and employment turnover: a meta-analytic test of the Muchinsky model. Journal of Applied Psychology.

Eskildsen, J. K., Kristensen, K., & Westlund, A. H. (2003). Work motivation and job satisfaction in the Nordic countries. Employee Relations.

Dawis, R. V., & Lofquist, L. H. 1984. A psychological theory of work adjustment. Minneapolis: University of Minnesota Press.

Docherty, P. et al, 2002. Creating Sustainable Work Systems, Routledge.

Dormann, C., & Zapf, D. 2001. Job satisfaction: A meta-analysis of stabilities. Journal of Organizational Behavior.

Haila, T., 2010 Pelialan koulutusten yhteistyön kehittäminen. Osaamisverkosto - projekti, Tampere.

Hakanen, J. 2002. Työuupumuksesta työn imuun – positiivisen työhyvinvointikäsitteen arviointimenetelmän suomalaisen version validointi opetusalan organisaatiossa. Työ ja Ihminen,

Hardy, G. E., Woods, D., & Wall, T. D. 2003. The impact of psychological distress on absence from work. Journal of Applied Psychology.

Hirsjärvi, S. & Hurme, H. 2001. Tutkimushaastattelu: teemahaastattelun teoria ja käytäntö. Helsinki University Press.

Hirsjärvi , S., Remes, P. & Sajavaara, P. 2009. Tutki ja kirjoita. Hämeenlinna: Kariston Kirjapaino Oy

IGDA (International game developers association). 2004. Quality of Life in the Game Industry: Challenges and Best Practices.

Ivancevich, J., Olelelns, M., & Matterson, M. 1997. Organizational Behavior and Management. Sydney: Irwin.

Judge, T. A., Bono, J. E., Thoresen, C. J., & Patton, G. K. 2001. The Job Satisfaction-Job Performance Relationship: A Qualitative and Quantitative Review. Psychological Bulletin

Judge, T. A., & Watanabe, S. 1993. Another look at the job satisfaction-life satisfaction relationship. Journal of Applied Psychology.

Kalhama, M. 2003. Suomalaisen peliteollisuuden kartoitustutkimuksen loppuraportti.

Helsinki: Mediakeskus Lume.

Kauppinen, T., Aaltonen, M., Lehtinen, S., Lindström, K., Näyhä, S., Riihimäki, H., Toikkanen, J., & Tossavainen, A. (toim.) 1997. Työ ja terveys Suomessa v. 1997. Helsinki: Työterveyslaitos.

Iaffaldano, M. T., & Muchinsky, P. M. 1985. Job satisfaction and job performance: A meta-analysis. Psychological Bulletin.

Latva, S., & Hiltunen, K., 2009, Pelitoimialan tuotekehitys, - rahoitus ja tukitarpeet 2009. Neogames-

Lawler, E. E. 1973. Motivation in work organizations. Monterey: Brooks/Cole.

Lee, R. T., & Ashford, B. E. 1993. A further examination of managerial burnout: Toward an integrated model. Journal of Organizational Behavior.

Lease, S. H. 1998. Annual Review, 1993-1997: Work attitudes and outcomes. Journal of Vocational Behavior.

Locke, E. A. 1976. The nature and causes of of job satisfaction. Teoksessa M. D. Dunnette, Handbook of industrial and organizational psychology Chicago: Rand McNally.

McConnell, S. 1996. Rapid Development: Taming Wild Software Schedules, Microsoft Press.

Organ, D. W., & Konovsky, M. 1989. Cognitive versus effective determinants of organizational citizenship behavior. Journal of Applied Psychology.

Ostroff, C. 1992. The relationship between satisfaction, attitudes, and performance: An organizational level analysis. Journal of Applied Psychology.

Peltoniemi, M. 2009. Industry Life-Cycle Theory in the Cultural Domain. Dynamics of the Games Industry. Tampere: Tampereen teknillinen yliopisto.

Petty, M. M., Beadles, N. A. II, Lowery, C. M., Chapman, D. F., & Connel, D. W. 1995. Relationship between organizational culture and organizational performance. Psychological Reports.

Pitkänen, K. 2005. Työtyytyväisyys it- ja telealan organisaatiossa – yhteydet rakenteellisiin tekijöihin ja Organisaatiokulttuuriin. Jyväskylä: Jyväskylän yliopisto.

Saarikoski, P. & Suominen, J. Pelitutkimuksen vuosikirja 2009. 2009. Pelinautintoja, ohjelmointiharrastusta ja liiketoimintaa. Tietokoneharrastuksen ja peliteollisuuden suhde Suomessa toisen maailmansodan jälkeen. Tampere: University of Tampere

Schaubroeck, J., Gangster, D. C., & Fox, M. L. 1992. Dispositional affect and workrelated stress. Journal of Applied Psychology.

Schnake, M. 1991. Organizational citizenship: A review, proposed model, and research agenda. Human Relations.

Schneider, B. 1985. Organizational behavior. Annual Review of Psychology.

Sotamaa, O. & Toivonen, S. 2010. Games as Services Final Report, Digital distribution of games: the players' perspective. Tampere: University of Tampere.

Spector, P. E. 1997. Job satisfaction: application, assessment, causes, and consequences. Thousand Oaks: Sage.

Trevor, C. O. 2001. Interactions among actual ease-of-movement determinants and job satisfaction in the prediction of voluntary turnover. Academy of Management Journal.

Digital Sources

Finnish Chapter of the International Game Developers Association (IGDA Finland). 2013. Web 22nd May 2013. http://igda.fi/?page_id=4

Hiltunen, K. 2012. Finnish game industry. Skene roadshow 2012. Powerpoint-esitys 18.9.2012. Web 19th October 2012. http://www.tekes.fi/fi/gateway/PTARGS_0_201_403_994_2095_43/http%3B/tekes-ali1%3B7087/publishedcontent/publish/programmes/skene/documents/skene_roadshow_2012/koopee_hiltunen__finnish_game_industry.pdf

Hiltunen, K., Latva, S., & Kaleva, J-P., 2013. Peliteollisuus - kehityspolku, Tekes. Web 17th October 2013. http://www.tekes.fi/ohjelmat-ja-palvelut/ohjelmat-ja-verkostot/skene/

Latva, S. 2013. Manse Games -projektin loppuraportti Web 27th October 2013. http://mansegames.fi/sites/default/files/manse-games-loppuraportti.pdf

Neogames Centre of Game Business, Research and Development. 2011. The Finnish Game Industy 2010-2011. Tampere: Kopio Niini Finland Oy. Web 13rd April 2012. http://www.hermia.fi/neogames/tutkimukset_ja_julkaisut/

Neogames Centre of Game Business, Research and Development. 2008. Suomen pelialan koulutustarpeet 2008. Tampere: Kopio Niini Finland Oy. Web 9th July 2010. http://www.hermia.fi/neogames/tutkimukset_ja_julkaisut/

Neogames Centre of Game Business, Research and Development. 2009. Finnish Games Industry 2008. Kirjapaino Jaarli Oy. Web 8th July 2010. http://www.hermia.fi/neogames/tutkimukset_ja_julkaisut/

Nye Griffiths, D. 2013 Forbes Web 23rd October 2013. http://www.forbes.com/sites/danielnyegriffiths/2013/10/15/softbank-and-gungho-to-acquire-supercell-for-1-5-billion/

APPENDIX 1: Questionnaire

WELCOME TO THE SURVEY OF JOB SATISFACTION IN THE FINNISH GAME INDUSTRY:

I am Tuomas Roininen, Digital Culture (MA) student from University of Jyväskylä.

I am doing a research for my MA thesis based on IGDA's Quality of Life White Paper (2004) but from the point of view of Finnish game companies. The purpose of this research is to carry out a similar survey as in Quality of Life White Paper (2004). Idea of this survey is to find material for my research about the job satisfaction in the Finnish game industry. This is valid way to find issues in the industry that need fixing to better in Finland. I hope that many as possible working in the Finnish game companies would respond to the survey, so that research should be comprehensive, reliable and useful for anyone who works in the field.

The themes of the survey are:

- General Satisfaction
- Job Stability
- Work Load
- Work Organization
- Job Quality

I wish that you could answer as truthfully as you can, because that is the way to find the real pitfalls of the industry and also there can be done valid conclusions. All of the survey respondents will be treated as anonymously.

Survey takes about 10 - 15 minutes and it includes multiple-choice questions.

Regards,

Tuomas Roininen
E-mail: tuomas.roininen@jyu.fi
University of Jyväskylä
Department of Arts and Culture Studies
Master's Programme in Digital Culture

Thesis supervisor: Raine Koskimaa, Professor of Digital Culture

Survey is open until 17th of March 2012.

(1 / 55) What is your gender?

◯ Male

◯ Female

(2 / 55) What is your nationality?

(3 / 55) Have you moved to Finland from other country?

◯ Yes

◯ No

(4 / 55) What is your marital status?

◯ Single, unattached.

◯ Single, in a serious relationship

◯ Married or living with a partner

(5 / 55) Do you have any children?

◯ Yes

◯ No

(6 / 55) What part of Finland your company is located?

◯ East Finland

◯ West Finland

◯ North Finland

◯ South Finland

◯ Åland

(7 / 55) City?

(8 / 55) How long have you been working in the game industry?

◯ Still a student or trying to get a first paying job.

◯ Less than 2 years.

○ 2-5 years.

○ 5-8 years.

○ 8-12 years.

○ Over 12 years.

(9 / 55) How did you get your first game development job?

○ Started my own company.

○ Through a friend.

○ Through a job fair.

○ Through a job ad.

○ Through an internship or work-study program.

○ Other._____

(10 / 55) How did you get your first game development job?

Other: _____

(11 / 55) Which of the following best characterizes your current employment situation?

○ Full-time, permanent employee of a game development studio.

○ Part-time employee of a game development studio.

○ Contractor working on a single project.

○ Freelancer working on multiple projects.

○ Independent developer working on games in my spare time.

○ Studio manager or owner.

○ Unemployed and looking for work.

○ Student.

(12 / 55) Which of the following best characterizes your current career path?

○ Audio

○ Design

○ Production

○ Programming

○ Visual arts

○ Biz & Misc.

(13 / 55) Which of the following best characterizes your career level?

○ Junior / Entry-level

○ Senior

○ Lead

(14 / 55) What is your education level? Check all that apply.

☐ Comprehensive school

☐ Upper secondary school

☐ Vocational school

☐ College degree

☐ Polytechnic bachelor degree

☐ Polytechnic master degree

☐ University bachelor degree

☐ University master degree

☐ University licentiate degree

☐ University doctor degree

(15 / 55) Which of the following best characterizes the game company you are currently working for?

○ Large studio usually working on 4 or more projects at the same time.

○ Mid-sized studio usually working on 2-3 projects at the same time.

○ Small studio with a single project team.

○ Independent team working part-time.

○ I am a freelancer or contractor.

○ Other: _____

(16 / 55) Which of the following best characterizes the game company you are currently working for?

Other:_____

(17 / 55) What is the average experience level of developers at your company?

○ Less than a year.

○ One to two years.

○ Two to five years.

○ Five to ten years.

○ Over ten years.

(18 / 55) What is your age?

○ 19 or younger

○ 20-24

○ 25-29

○ 30-34

○ 35-39

○ 40-49

○ 50 or older

(19 / 55) What is the average experience level of project leads (producer, lead programmer, lead artist, lead designer) at your company?

○ Less than a year.

○ One to two years.

○ Two to five years.

○ Five to ten years.

○ Over ten years.

(20 / 55) Your gross income (in Euro)?

(21 / 55) Type of additional compensation received? Check all that apply.

☐ Annual bonus

☐ Pension/Employer contribution to Retirement plan

☐ Profit sharing

☐ Project/title bonus

☐ Royalties

☐ Stock options/equity

☐ No additional compensation

(22 / 55) Type of benefits received? Check all that apply.

☐ Medical

☐ Dental

☐ Other: _____

(24 / 55) On a scale of 1 to 5, with 1 being the lowest and 5 being the highest

	1. Strongly not satisfied	2. Not satisfied	3. Neither satisfied nor not satisfied	4. Satisfied	5. Strongly satisfied
I am satisfied with my game development career in general	○	○	○	○	○

(25 / 55) On a scale of 1 to 5, with 1 being the lowest and 5 being the highest.

If you were to ask your current (or most recent) spouse, boyfriend or girlfriend, what would they say about your game development career?

	1. Strongly disagree	2. Disagree	3. Neither agree nor disagree	4. Agree	5. Strongly agree
You work too much and don't spend enough time with me and/or the kids.	○	○	○	○	○
You are always stressed out.	○	○	○	○	○
You don't make enough money.	○	○	○	○	○
You seem so happy; it's great!	○	○	○	○	○
When are you going to get a real job?	○	○	○	○	○
I don't like the content of the games you work on.	○	○	○	○	○
I wish I had a job like that.	○	○	○	○	○

(26 / 55) How long do you plan on staying involved in the game industry?

○ I will probably look for a job in another field within 2 years.

○ I will probably stay in games for another 2-5 years, then leave.

○ I will probably stay in games for another 5-10 years, then leave.

○ I will probably stay in games for my entire career.

(27 / 55) If you could change one thing about your game development career, what would it be?

○ I would work on more interesting projects.

○ I would earn more money.

○ I would take on greater responsibilities.

○ I would work shorter hours.

○ I would get more job stability.

○ I would not change anything.

(28 / 55) In your opinion, what is the leading cause of stress for you and your co-workers?

○ Tight ship dates.

○ Bad relationships between management and developers.

○ Bad relationships between co-workers.

○ Bad relationships between the company and publishers.

○ Company is in financial trouble.

○ We don't know where the next project will be coming from.

○ Everything is fine.

○ Other: _____

(29 / 55) In your opinion, what is the leading cause of stress for you and your co-workers?

Other:_____

- No answer

(30 / 55) Which of the following best describes the transition between projects at your current company?

We usually have new work lined up before a project is completed.

We usually have significant down time between projects, but we keep our employees on the payroll during these periods.

We hire on a project basis and lay off staffers once the project is completed.

(31 / 55) Have you ever been laid off from a game development job? If so, why?

No, never.

Yes, when my project was cancelled in midstream but the company stayed in business.

Yes, when the company went out of business or my local studio was closed.

Yes, at the end of a project that shipped.

(32 / 55) Have you ever quit on a project in midstream? If so, why?

No, never.

Yes, because I felt that the project was going to fail.

Yes, because of conflicts with management or co-workers.

Yes, because I was too exhausted to continue.

Yes, because I found a better job elsewhere.

Other: _____

(33 / 55) Have you ever quit on a project in midstream? If so, why?

Other:_____
 - No answer

(34 / 55) During your game development career, what is the longest period of time you have ever spent with the same company?

Less than a year.

Between one and two years.

Between two and five years.

More than five years.

(35 / 55) How many hours do you work in a regular week?

Fewer than 35 hours.

35-45 hours.

46-55 hours.

More than 55 hours.

(36 / 55) Is the length of your workweek representative of the average at your studio?

I tend to work fewer hours than my colleagues.

I tend to work about the same number of hours as my colleagues.

I tend to work more hours than my colleagues.

(37 / 55) How does your company compensate overtime? Check all that apply.

We pay overtime at the employee's usual hourly rate.

We pay overtime at a premium rate.

We count all hours and compensate overtime with an equal amount of time off.

We compensate with some time off at the end of a project, but we don't count all hours.

We pay milestone bonuses.

We compensate overtime with royalties or profit sharing.

We do not compensate overtime.

Other: _____

(38 / 55) How does your company compensate overtime? Check all that apply.

Other:_____
- No answer

(39 / 55) How often does your company have "crunch times" during which most members of teamwork longer hours than usual?

Never.

Only during final beta testing.

Before every milestone.

Monthly or more.

(40 / 55) How long do crunch times typically last at your current company?

Less than a week.

Between one and two weeks.

Between two weeks and a month.

Between one and two months.

Over two months.

(41 / 55) How many hours do you typically work during a crunch week?

Fewer than 35.

35-45.

46-55.

55-65.

65-80.

More than 80.

(42 / 55) Which of the following assertions best describe your company's policy regarding crunches?

Other:_____
- No answer

(43 / 55) What is your company's usual policy regarding release dates?

We ship when the game is ready, no matter how long it takes. Quality comes first.

We are under significant pressure to release for Christmas or at another fixed date, but we can survive if we slip by a couple of months.

We absolutely, positively must ship by a certain fixed date or we will get killed in the marketplace.

(44 / 55) Which of the following best describes the staffing situation at your company?

We have all the people that we need to make production smooth and painless.

We could use some more people or special skills in some areas once in a while.

We often have to work extra hours, learn on the fly and/or improvise because we can't hire people with all of the skills that we need.

We are chronically understaffed and production is always stressful.

(45 / 55) Do you feel that the schedules and staffing requirements that your company prepares in pre-production are:

Very accurate and lead to easy production cycles.

Sufficiently accurate and flexible to get by with only a minimal amount of crunch time.

Reasonable in most cases, but occasionally flawed, leading to tense periods.

Wishful thinking that will only fit reality if no unforeseen problems arise.

So optimistic that we know we'll be in crunch from Day 1.

(46 / 55) How does your company control changes to the game design during production?

We never change anything to the game once production begins.

We have a formal change control policy that minimizes changes.

We often add features when someone on the team comes up with a good idea or sees something great in a competing product, but we're careful not to impact the schedule too much.

Feature creep is a big problem for us, and it messes up our schedules big time.

(47 / 55) How would you characterize your working environment? Check all that apply.

Noisy.

Overcrowded.

Not enough privacy.

Effectively promotes teamwork.

Too corporate.

Comfortable.

Computers and/or network need upgrades.

Other: _____

(48 / 55) How would you characterize your working environment?

Other:_____

- No answer

(49 / 55) How would you rate the level of challenge you experience at your current job?

I am overwhelmed with complexity. The job is too hard.

I am constantly challenged and I love it.

My job is usually interesting, with small, manageable amounts of drudgery.

I have mastered my job and would be ready to take on a new challenge, but I am in no hurry to change.

I am overqualified for the work I do and I am bored or frustrated most of the time.

(50 / 55) Which of the following best describes your experiences when you first joined the industry? Check all that apply.

I had a mentor and it helped ease my way into the business a great deal.

I had a mentor and it helped a little.

I didn't have a mentor; I made my own way.

I desperately wanted to develop games; it was the only choice for me.

Developing games was only one career option among many.

Getting my first game development job was easy; it took 3 months or less.

Getting my first game development job was moderately hard; it took 3 to 6 months.

Getting my first game development job was hard; it took over 6 months of effort.

During my first year, I often felt I was "paying my dues" with grunt work instead of being challenged to my full potential.

I felt part of the industry's "big picture" right away.

At some point during my first year, I considered leaving the industry.

Other: _____

(51 / 55) Which of the following best describes your experiences when you first joined the industry?

Other:_____
- No answer

52 / 55) How do you feel about the controversial content in games like Grand Theft Auto 3 or Postal 3 ?

It doesn't bother me at all.

The only thing that bothers me about it is the media coverage that makes game developers look bad.

The content doesn't bother me personally, but it bothers my friends, family or community and that makes me uncomfortable.

I don't like it and would never work on a project like that.

(53 / 55) Which of the following assertions best describe your company's policy regarding credits? Check all that apply.

I always get the credits that my work deserves.

If you leave the company before the project is released, you're probably not going to get a credit, no matter how much work you did.

I feel that my work isn't properly credited.

There are often people who get credits in games on which they didn't work.

The credit allocation policy makes no sense to me.

The credit allocation policy is fair and balanced.

Management and publisher staff gets too much credit compared to developers.

(54 / 55) Do you have a clear plan for your career?

Yes, and my company and my boss support my development actively.

Yes, but I have to pursue it in a clandestine manner because the company would rather have me stay at my current level.

No, I'll just see what comes.

It doesn't matter, because it is hard to make any plans in this industry.

(55 / 55) Any other comments you would like to share to Researcher. You can tell your comments in Finnish too.

Text box
- No answer

(55 / 55 extra) On a scale of 1 to 5, with 1 being the lowest and 5 being the highest, answer how you feel about the survey.

	1. Strongly disagree	2. Disagree	3. Neither agree nor disagree	4. Agree	5. Strongly agree
The survey of job satisfaction in Finnish game industry is a necessary					

End of interview. Thank you for your participation.