Young Gamers Outside Education, Employment or Training: Translating Computer Gaming Skills to Job Relevant Competencies

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Abstract: 9.5 per cent of people aged between 15 and 29 in Norway are 'not in education, employment or training' (NEET) (Statistisk sentralbyrå, 2022). NEET status is generally associated with several negative factors, such as lack of social mobility, poverty, negative socioeconomic status and persistent exclusion from education and work life (Wrigley, 2017). Work exclusion represents a significant challenge on both a macroeconomic level and for the individuals who experience work exclusion. The perspective of computer games as learning tools has resulted in an increased interest in how games can generate positive changes in the player (Gee, 2007; McGonigal, 2012). From the perspective of career guidance, it is central to look at whether the positive changes and the learning such change implies can be used to develop career competencies and skills that are attractive for the world of work. This paper reports on a project to develop, conduct, study and evaluate an occupational training program for 15 young gamers between the ages of 18 and 30 classified as NEET. The research question for the project is how participants in a work preparation course experience computer gaming as an arena for developing career competencies and skills and how these skills and competencies may contribute to the participants' employability

Keywords: Computer games, NEET, Occupational Training Program, Competence Development, Employment

1. Introduction

Persons not in employment, education and training (NEET) represents a heterogeneous group (Fyhn, Radlick & Sveinsdottir, 2021). NEET is generally associated with a number of negative factors such as lack of social mobility, poverty, low socio-economic status and consistent exclusion from education and work (Wrigley, 2017).

Norway has seen a rise in demand concerning innovation directed towards programs aimed at reducing unemployment (Meld- ST 32, (2020-2021). Given that young people are large consumers of computer games with as many as 47 percent of those aged between 16 and 24, and 32 percent of those aged 25 to 44 reporting daily engagement in digital games in Norway, implementing computer games and gamification into occupational training programs is one potential approach to assist people in transitioning from NEET into permanent employment or education. Occupational training programs, referred to as AFT in Norwegian, are designed to evaluate a person's ability to work, assessing their work-related competencies and offering them work related activities (NAV, 2023).

In recent years there has been a shift in discourses concerning gaming from viewing it as problem behaviour to focusing on the beneficial outcomes that engagement in computer games might have for the player (Gee, 2007; McGonigal, 2012). The shift towards exploring how computer games enhance skills, reflective abilities, cooperation, and ethical decision-making has sparked increased research interest (Kelly, Magor & Wright, 2021; Snodgrass et al., 2018; Nuyens, Lopez-Fernandez & Griffiths, 2019; Alonso-Díaz, Yuste-Tosina, & Mendo-Lázaro.; 2019: O'Connor & Menaker, 2008) and the use of computer games in career guidance have become more common because of its potential to create positive changes in the player (Gee, 2007; McGonigal, 2012)

The purpose of career guidance is to generate career competence, which means providing persons with skills and competencies needed to navigate through life, learning and work (Bakke et al, 2020). Applying computer games as a means to increase work and education-related competencies has according to O'Connor & Menaker (2008) and Perkins (2011) shown promise. However more research is needed in order to generate knowledge on how computer games can be used as a concrete approach in occupational training.

2. Games as Learning Machines

Video games have historically been seen as just another form of entertainment, primarily for kids, and with little real-life value. Since the inception of game studies in 2001 and the growing omnipresence of video games in

everyday culture, the focus has shifted to recognising that video games have value, not just as a cultural product but also as an art form (Aarseth, 2001). Additionally, they can function as powerful learning machines that are useful in teaching, training, and learning (Gee, 2003, 2005a, 2005b, 2007). This is particularly important for young people outside of education, employment or training, as video games can represent an informal but practical learning arena (Pallavicini et al., 2018; Pereira et al., 2019). Through engagement in video games, players can develop a range of competencies and skills that are relevant and sought after in the job market such as creativity, strategical and critical thinking, planning and problem-solving skills, collaboration, communication, teamwork, leadership, decision-making and more (Barr, 2017, 2018; Oei & Patterson, 2013; Adipat et al., 2021; Glass et al., 2013; Isabela et al., 2014). Through playing video games, players also often develop advanced technical skills and a high level of digital literacy (Tinmaz et al., 2022; Turner et al., 2017). Game environments are also dynamic and often unpredictable, requiring players to adapt to new situations and overcome challenges quickly. This continuous adaptation builds resilience and the ability to handle stress, which are valuable traits in a job market characterised by rapid technological changes and frequent disruptions (Pallavicini et al., 2018; Wang et al., 2023).

Video-games can also represent a unique opportunity to acquire relevant skills to facilitate the workforce transition for young people outside of education, employment, or training. However, understanding what players have learned from playing requires an active translation process.

The need for active translation of qualifications between contexts is referred to in learning psychology literature as 'the transfer problem' (Illeris, 2012). Qualifications are only part of learners' competence to the extent of their ability to apply them practically. The transfer problem presents itself mainly when learners try to apply qualifications they have obtained in a school setting to a workplace context. The transfer problem can, however, be overcome by helping learners restructure already established mental schemas through the process of accommodative learning, a 'transcendent' or transformative form of learning that fundamentally shifts people's understanding of the world. Players' abilities to translate learning outcomes from playing to valuable competence in the labour market can be seen as a form of career competence, and this project allows exploring how gamers can develop this competence.

3. Career Learning Through Games and Guidance

The field of career development is often seen as a transdisciplinary field that draws on psychology, pedagogy, sociology, economy and philosophy. The aim of career guidance and education is to facilitate career learning that enables clients to build career competence that helps them navigate through life, learning and work.

Gaming generally promotes a kind of learning that is internally motivated and problem-focused. Young adult gamers then enter new learning processes with many experiences from gaming and other life domains. The occupational training program that we explore in this project aims to meet the gamers on their turf, scaffolding their learning with a range of different and integrated career learning activities that give them a context and an opportunity to share and discuss their often tacit knowledge and understandings from their previous experiences.

This pedagogical approach to career education aligns well with McIlveen's (2012) proposal to build on andragogy and transformative learning to promote transformative career development learning, which can help gamers learn to translate their gaming experiences to competence transferable to the labour market. The practical approach to the program aligns with integrated guidance, which is a method of building learning activities through instructional design to scaffold career learning (Bakke & Hooley, 2022). The program then allows for the exploration of both pedagogical and practical approaches to career education for young gamers.

4. Method

In this project, we followed 15 young adults (NEETs aged 18 to 32) who participated in an occupational training program focussing on enabling and supporting the transition to work or education on commission from the Norwegian welfare administration. The program consisted of various activities, such as seminars and workshops, cooperative gaming, individual counselling in-game, job interview training in VR and traditional occupational training activities such as job search, writing applications, developing a CV and more.

The methodological approach was action research and ethnography (Fangen, 2010; McNiff & Whitehead, 2006). The data was collected over nine months. The action research framework called for participants to actively participate in developing the activities in the program, and interviews and interactions with the participants

throughout the project period focused on evaluating and adapting the activities in the program. The fieldwork was conducted using participant observation, focus group interviews and individual interviews with the participants in the project, both in real life (IRL) and in a virtual in-game environment.

The analysis will employ a thematic approach within an experience-based narrative methodology (Gubrium and Holstein, 2008; Mishler, 2006; Phoenix, 2013).

5. Preliminary Findings

Since this is a work-in-progress paper, we have not yet begun the thematic analysis. However, to state something about what this project has found, we applied AI as a tool to do a preliminary screening of the data-material and identified the following themes.

- Problem-solving skills
- Critical thinking
- Strategic planning
- Team-work skills
- Language skills
- Logistics management skills
- Systematic organisation
- Ability to handle complex systems
- Increased social skills

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