Ammattikasvatuksen aikakauskirja, 25 (2), 20-33.

Career development to construction site managerial positions in the construction field

Krista Rautio

YTM, väitöskirjatutkija Lapin yliopisto krista.rautio@ulapland.fi

Sanna Hyvärinen

KT, yliopistonlehtori Lapin yliopisto sanna.hyvarinen@ulapland.fi

Satu Uusiautti

KT, professori Lapin yliopisto satu.uusiautti@ulapland.fi



Abstract

This research explores career development in the construction industry. By showcasing the career narratives of managers of construction sites (N=21), the research unfolds which elements are significant in influencing career development and aims to increase the possibilities for construction workers to flourish in their careers and help make such careers more attractive. The career narratives were analyzed in two phases. First, the analysis of narratives showed that except for the various career experiences, the proximity of construction sites in the interviewees' managerial career goals differentiated the narratives. Second. as a result of narrative analysis, three construction managerial career paths were identified: I) devotion to construction site management, II) interest in versatile construction projects, and III) passion for leadership. Career development could be viewed from the perspective of

various capitals which emerge in the narratives. The interviewees brought up societal and economic changes that challenged or boosted their careers or even caused them to change direction. Career goals might not have been achieved as such if they were not enabled by external factors, such as organizational, economic, societal, or location-related issues or favorable coincidences. The participants found favorable options and solutions for career development by drawing on their social and psychological resources. Social capital supported career choice and career development, whereas psychological capital appeared as, for example, optimism, perseverance, and an ability to follow one's calling.

Keywords: career path, construction management, narrative research, positive psychology, psychological capital, social capital

Introduction

he construction sector forms a multidimensional context of career research as it provides its workers with a very people-intensive and complex work environment characterized

by structural fragmentation, diversity of work practices, and rapidly changing projects (Dainty et al., 2007). The "construction industry" is, in itself, subject to several different boundary definitions (Dainty et al., 2007), but the uniqueness of the industry, in terms of its multidimensionality, is commonly acknowledged in academic books and journals (Hillebrandt, 2000; Dainty et al., 2007; Opoku & Fortune, 2011; Toor & Ofori, 2008).

This research showcases career narratives of managers of construction sites with different kinds of professional backgrounds, unfolding the significant elements which have influenced their career development. From a historical perspective, construction work appears to be a physically demanding job that has favored men. Social stereotypes and norms still play a large role in reinforcing a gendered workforce (Naoum et al., 2020; Styhre, 2011), and gendered management strategies are still experienced in the field (Naoum et al., 2020; Raiden, 2016; Rautio, 2022). One purpose of this research is to discover which elements make a construction career attractive and how to enhance engagement in the field from the perspective of personal career experiences. First, this is a topical concern because there is currently a serious lack of construction site managers (Ministry of Economic Affairs and Employment, 2022). Second, by making these career stories visible, we hope to improve the development of education and leadership in the construction industry (see Borg & Scott-Young, 2022). Drawing on the aforementioned two objectives, we also wish to increase possibilities for construction workers to flourish in their careers and help make these careers more attractive.

Career Development in the Construction Field

n this research, career narratives are understood as individual experiences intertwined with contexts and environments (Baruch & Bozionelos, 2011; Cohen et al., 2004). Today's psychological approaches to careers show that work that provides a sense of purpose, challenge, and self-fulfillment, along with rewarding income, becomes a positive source of identity, creativity, and life challenge as well as status and access to social networking (Baruch, 2004; Uusiautti & Määttä, 2015). This study leans on the positive psychological idea of increasing flourishing by understanding human behavior through strengths and positive development (Peterson, 2006; Seligman, 2011; Uusiautti et al., 2020). In order to experience positive experiences, such as joy and accomplishments along one's career, it is essential to have a job and follow a career path makes self-fulfillment possible. These opportunities for flourishing and favorable career development can form the basis of a successful career path (Uusiautti & Määttä, 2015). This research aims to contribute to the understanding about flourishing at work in the field of construction industry.

A satisfying and meaningful career can be built not only by moving "upwards,"

but also without a change of jobs or titles (Redecopp & Huston, 2019; Wu et al., 2019). In addition, career progress is greatly affected by the environment (Baruch & Bozionelos, 2011; Cohen et al., 2004). The construction industry offers a plethora of satisfying and well-paid career paths to managerial positions (Gajjar et al., 2019). Since managerial positions at construction sites are not entry-level jobs (Byers, 2016), these managers are usually required to have both a university degree and construction work experience (see also Wilkes et al., 2015).

In the construction field, career progress is also greatly affected by social environment (Baruch & Bozionelos, 2011; Cohen et al., 2004) and social relationships and networks seemingly play an important role in successful career paths (e.g. Mäki, 2021; Rautio, 2022). In adolescence, parents have the highest level of influence on students (Bryan et al., 2011). Additionally, career guidance plays a pivotal role in young people's career choices (Francis & Prosser, 2013). During employment, positive social relationships at home and at work promote career success (Uusiautti & Määttä, 2015) and these relationships are commonly approached together with the individual's social skills such as empathy, cooperation and assertiveness (see Seligman, 2011). For those who aspire to succeed in the field, it appears that high social capital pays off (Ganiron & Tomas, 2013).

Work readiness studies have explored the early career stages of construction professionals (see, for example, Borg & Scott-Young, 2022; Torres-Machí et al., 2013) but very few actual career paths or the significant factors which affect them. It is known that career calling (Hall & Chandler, 2005) is strong among the ac-

tors in the field (Wu et al., 2019). In the construction field, career calling is a significant buffer against burnout and stress caused, for example, by role ambiguity in the variety of tasks that are related in the field (Wu et al., 2019). Career calling manifests itself as (1) action orientation, (2) clarity of purpose and (3) mission and pro-social intention, and thus, also makes people commit to their work (Wu et al., 2019).

From the point of view of our research, learning about early stage career calling and commitment can help the construction field for pointing out the attractiveness and career opportunities in a better and modern way. Successful career guidance itself can be regarded as social capital of students (Bryan et al., 2011), while it also increases the student's psychological capital to make self-appreciative and wellbeing-promoting career decisions that illustrate hope, optimism, self-confidence, and resilience (Luthans et al., 2004; Katajisto et al., 2021). Previous research proclaims the need both to raise awareness of career possibilities related to construction management (Wilkes et al., 2015) and to consider gender diversity when directing students to construction (Francis & Prosser, 2013). Such guidance helps students find meaningful careers and understand their abilities and strengths in different positions (see also Hyvärinen et al., 2022). If career guidance in the construction field is to be developed in such a way that it inspires new students and future employees, it is essential to reveal the aspects individuals see as important in their career development (MacDonald & Durdyev, 2021; Francis & Prosser, 2013).

Method

Two research questions were set for this research:

- 1. How do managers of construction sites with different kinds of professional backgrounds describe their careers?
- 2. What kinds of similarities and differences appear in their career narratives?

To answer these questions, we used the narrative approach. A narrative is here defined as a story of a career, which unfolds over time and with consequence within a specific social cultural milieu (see Wells, 2011). A semi-structured interview method was used to conduct the research interviews (see Brinkmann, 2018), and we also applied a narrative futuring technique (Horst, 2021) by asking the interviewees to imagine and talk about their career situations in the future. The interviews included questions about choice of field, significant career events, goals and prospects, personal qualities, and the importance of work. For the pursuit of interviewees, an invitation letter was dedicated to ones working in managerial positions of construction sites with a snowball method by contacting construction associations and companies, publishing the invitation in Rakennuslehti [Construction Magazine] in November 2020 and by directly contacting.

The data consisted of 21 oral (N=20) and written (N=1) interviews (19 men, two women, aged 25–74), conducted in Finnish. The participants had the following educational backgrounds: undergraduate degree in construction (N=1); master builder from a university of applied sciences (UAS) (N=10); UAS mas-

ter builder and UAS engineer (N=1); UAS engineer (N=5); UAS engineer and UAS master's degree in construction (N=1); and engineer (N=3). The job titles were foremen (N=5), site managers and responsible site managers (N=8), construction managers (N=3), construction engineer (N=1), chief executive manager (N=1), technical manager (N=1), business director (N=1), and retired from responsible site manager's position (N=1). Work experience in the field (including pre-managerial and pre-study tasks) varied among veterans, with between 30 and 42+ years (N=11), professionals, with between 10 and 20+ years (N=7), and novices, with between three and eight years (N=3). The interviews lasted from 20 minutes to almost two hours.

The analysis was conducted in two stages, namely analysis of narratives and narrative analysis (Polkinghorne, 1995; Squire et al., 2014). First, we implemented the analysis of narratives by categorizing the career stages through which the interviewees told their stories. The repetitive and exceptional elements of the careers are reported by referring to the group with which the interviewees identified themselves: novices, professionals, or veterans. Next, we implemented the narrative analysis in order to organize the stories into "meta-narratives" (Polkinghorne, 1995) describing the specificity of the interviewees' career paths. We noticed that career choice could have been decided by drift, vocation, or determination, but the choice of a career in construction did not necessarily determine the direction that career would take. Similarly, educational backgrounds and orientations varied, but the data showed that the interviewees did not necessarily consider the orientations relevant to their career advancement, while the orientation might have been chosen

The meta-narratives were formed based on the proximity of construction sites in regard to both career goals and career accomplishments.

due to the possibilities available. Individual and external factors affecting careers were also described both universally and in a unique way and may have featured in many types of career paths. Instead, when the interviewees described their future goals and the importance of the work, we noted that the strongest differentiating factor was the degree to which their career was related to actual construction and proximity to construction sites. Thus, the meta-narratives were formed based on the proximity of construction sites in regard to both career goals and career accomplishments. The narratives were tagged "CS" (construction site), "CS&H" (construction site or higher), and "H" (higher), where CS refers to career goals and achievements in the construction site, and H refers to career aspirations toward higher leadership positions off-site. All narratives could be placed into the following three categories:

- veterans (N=11), CS=9, and CS&H=2
- professionals (N=7), H=7
- novices (N=3) H=2, and CS=1.

In the report on results, the 21 interviewees are referred to with capital letters, A–U, and marked with the codes v, p, or n (veteran, professional, or novice).

Results

Career Advancement

Career choice and early career path

majority of the interviewees had entered the industry either because close male relatives had provided role models or because they had participated in construction at an early age. In the veterans' stories, own interest

in construction and diverse financial reasons played pivotal role, while educational possibilities were not always accessed easily. Most of the professionals had been very certain about their choice of field, although two had drifted to the field. Novices also mentioned the effect of their fathers but they had either been guided to or had drifted to the field. They had had multiple educational opportunities from which to choose.

I started with my father, grandfather, and uncle. Then vocational school. technical school, and working life. - - I had no other option in mind. (vL)

It's a matter of blood inheritance. Grandpa is a master builder... (pF)

...through my father, I got a summer job - -. I felt I was not interested in construction work. - - The following summer, however. I went to a site - - and became interested in studying the industry. (nH)

nical or high school, then commonly military service (mandatory for men in Finland) and higher education studies of site management or engineering. The actual site managerial work often began in the

Work experience was followed by tech-role of foreman or site manager. As experience and know-how accumulated, they generally gained increasingly challenging sites or advanced to being responsible site managers.

I've held diverse positions from - - responsible site manager, construction manager, production manager, to CEO... (vB)

After [graduation] I immediately got to manage my own project as site manager... (pA)

I got to be a supervisor of -construction workers. which was very strange because I was very young. (nH)

diverse and unique projects in several lo-their careers. Careers developed in the dications. Interviewees gave detailed de- rection of interviewees' own interest rathscriptions about site progress, adversities er than, for example, an educational orifaced, and solutions found. Several veter- entation. ans and professionals had worked abroad,

Careers in these positions consisted of some had also been entrepreneurs during

Career Goals and Future Prospects

The *veterans* had either remained in or returned to managerial positions at or close to actual construction sites. All the *veterans* (N=11) aimed to stay in similar positions in the future. The *professionals* (N=7) and two of the *novices* (N=3), in

turn, were pursuing career advancement towards higher management positions performed further away from the immediate context of construction sites. One *novice's* story epitomizes how career development can also be pursued as an interest in developing in the site manager's task itself.

Similar challenging tasks, challenging sites. (vM) ...unit manager, regional manager. (pF) Supervisors often ask me
[about my career goals].
I really can't say because I think
it's nice now, here.
Of course, I want to learn more.
(nT)

Interviewees divided the management positions into construction site and office work. Those aiming to stay close to actual construction described themselves as "doers, with boots in clay." Those pursuing higher management roles described their goals as being either to take on more responsibility or to emphasize developmental aspects of their work. The supervisor's role was described as more of a leadership role than one of leading *work*. Factors characteristic of construction work, such as the demand to be physically present at sites or engage in complex work tasks were also included in future prospects.

Significant Factors for Career Advancement

The range of *personal factors* affecting career paths were quite consistent: own ambition, interest in construction (some used the terms "passion" and "love"), and desire for continuous learning were often brought out. Interviewees valued social skills. Flexibility, self-confidence, resilience, determination, and goal orientation were commonly mentioned, as was the courage to take on the new challenges. Additionally, a *veteran* highlighted a personality that enjoys and fits project-type work.

Contracts and project-type work, my personality fits those. (vB)

Social skills, I have a lot of acquaintances and friends with whom I talk and get first-hand information about big projects.

(pD)

I took on more responsibility
and was really left alone.

- A foreman's work is
sometimes very rough,
and you have to know how to
deal with it.
(nH)

peared to be diverse: work-related contacts such as good colleagues and supervisors, cross-organizational networks, unofficial mentors and close friends supported and enabled career advancement. Furthermore, economic fluctuations quickly af-

External factors impacting careers ap- fect the construction business and cause a limited work supply, which appeared in several narratives, yet the interviewees remembered numerous significant encounters and positive opportunities in challenging situations.

In -94 it was very quiet in Finland so - a good friend lured me to a Russian project... (vL)

...I became unemployed and went to [a] construction site as a welder. - - I applied for a company ID and [started] my career as an entrepreneur. (pJ)

...an organizational change began. Everyone got fired. - -. It was a good opportunity to begin the master builder studies. (nT)

stories, head-hunters and families played important roles. One professional mentioned effective study counseling, while one *novice* mentioned the lack of it. The birth of a child could make a person decide not to work out of town, and support received at home was perceived as a meaningful promoter.

Career Narratives to Managerial **Positions**

The Beginning of Three Management Paths

The dominant three career narratives leading to managerial positions depict paths where the actors have congruent construction-related experiences in their youth and family members who are construction workers. Career development for management positions starts in childhood and youth by getting to know the

coincidences, in assistant or summer jobs at construction sites. The field selection is confirmed at the stage they choose where to study. Often, the choice is clear, and construction is, in itself, interesting to applicants for construction studies at university.

> During their studies, actors start expanding their networks and become familiar with various construction related jobs. Managers-to-be familiarize themselves with out-of-town work. Work experience before and during studies is useful and valued later in working life. While these manager pathways are markedly different, unique, and affected by various specific features, a commonality that can be identified among all interviewees is the significance of social relationships, networks, and the environment.

Path 1: Devotion to Construction Site Management

field early on with (basically male) rela- Construction site managers have a passion tives. Young people gain work experience for both building and management and a sense of doing substantial work yet being in a managerial position and having their "boots in the clay." Site managers and responsible site managers like project-based work, value social relationships on construction sites, and feel that they are producing solid work results at the crossroads of many construction-related parties. The actors need to learn to take over multicultural work environments and specialized construction areas. Instead of the chance to take on a particular job title, career development is measured by the demands of construction sites, one's own specialization and development, work experience and success in completing projects. At the end of their career, the actors on this career path have a great deal of construction expertise and many stories of memorable occurrences at work.

Path 2: Interest in Versatile Construction Projects

In this path, the actors partly experience participation in construction sites, but their work consists of the development and management of entities and is mostly office-based. Depending on the size of the employer company, these positions can be for example, a construction manager or project manager. From these management positions, one can move to site management or other managerial positions, and an experienced responsible site manager, for example in special construction sites, often follows this path. Moving to the position of responsible site manager does not feel like a career demotion but, rather, as accepting more challenging projects. However, the many dimensions of management and an interest in staying near construction sites are of interest to those following this career path.

Path 3: Passion for Leadership

Higher management positions are pursued and thus advanced to early on; those aiming for these positions aim at developmental and managerial tasks in general. At the time they selected their occupation, they had a strong interest in the construction industry. New challenges interest these actors, and they see them in various management positions. Usually, their career has progressed quickly in terms of job titles and areas of responsibility. Since there are relatively few higher management positions, the actors take advantage of opportunities to advance in their career, and opportunities may come by chance and through favorable events. Work takes place in the office, and career development is measured through job title and salary development, along with the development of leadership skills.

Discussion

Tn this research, it seemed that career development, rather than being ▲ a steady career progress toward managerial positions, could be viewed from the perspective of various capitals emerging in the narratives. The construction site managers brought up societal and economic changes that challenged or boosted their careers or could even cause them to change direction. Career goals might not be achieved as such if external factors, such as organizational, economic, societal, or location-related issues or favorable coincidences, did not enable them. However, favorable options and solutions for career development could be found by drawing on psychological and social resources.

The role of career guidance appeared in the career narratives only twice.

Social capital, in the form of who people know and what kinds of social networks they have (Luthans et al., 2004), had a strong impact on the interviewees' career choice and paths. They ended up in the construction field through personal interest and because of family members (e.g. MacDonald & Durdyev, 2021), and career development was supported by a large number of social and psychological factors. Psychological capital (e.g. Luthans et al., 2004) appeared as optimism, perseverance, and ability to recognize one's calling (e.g. desire to work on site). It also seemed to support wellbeing, facilitate self-appreciating career decisions (Luthans & Youssef-Morgan, 2017), and strengthen the ability to withstand business challenges and economic uncertainty (Luthans et al., 2004; see also Elsafty et al., 2020).

It is, however, reasonable to point out that the role of career guidance appeared in the career narratives only twice; in one story as a significant factor affecting career choice, and once it was mentioned to have been lacking. The careers of the interviewees had ultimately turned out well, but the absence of teachers and student counselors in the data was remarkable. The potential of counseling could be better leveraged, especially from the perspective of introducing the various possibilities of careers in the construction field and finding the most suitable paths for each individual.

When telling somebody else's story, the key ethical questions concern story own-

ership and entitlement (Guthrie, 2022; Shuman, 2015). In this research, the uniqueness of each participant's story is influenced by the theme and questions of the interview, and finally, by the interpretations made by the researchers. This may have led, for example, to an emphasis being given to the importance of certain experiences in the career stories, since the semi-structured interviews consciously aimed to encourage the narration of particular social experiences (see Slembrouck, 2015). For example, if more novices or women were reached for the research, the findings might have gotten different emphases. In terms of reliability, however, the narratives appeared rich yet highlighted those career events that the interviewees themselves wanted to bring up and express as meaningful for them.

Conclusion

The construction industry will experience a major shortage of skilled labor due to the retirement of baby boomers and the lack of new talent entering the industry to replace them (Gajjar et al., 2019). As also discovered in this study, traditionally the nature and notion of careers has been based on hierarchical, even rigid, structures. Past career models had a clear, uni-dimensional direction of prescribed "advancement," whereas both practice and research now demonstrate models of careers that comprise a variety of options and directions (Baruch, 2004). We now have multi-option criteria to assess career advancement or success. These can be inner satisfaction, life balance, autonomy, freedom, or other measures of self-perception (e.g. Baruch, 2004; Karima et al., 2022) or can be defined, for example, through individual, social, and work-related roles (see Rautio, 2022).

How to make construction careers more attractive in general, including to women.

Another important notion for further contemplation is how to make construction careers more attractive in general, including to women, so that women would not need to overcome barriers and find ways to cope in male-dominated construction environments (see Lingard & Francis, 2008; Naoum et al., 2020; Styhre, 2011). Our research provides new information about how people enter a construction career and how the career development plan may depend on, for example, how attractive they find working on site or being in higher leadership positions. Furthermore, the work itself has become increasingly fragmented and unpredictable. From the perspective of a construction site worker, this poses another challenge for collective identification at the workplace. Löwstedt and Räisänen (2014) talk about tensions between an ingroup and "outsiders," which was referred to in our study in situations where "real" construction workers and office workers collaborate. Various managerial roles may have similar competitive elements, which, however, does not favor the future development of the field.

Based on the analysis of narratives and narrative analysis conducted in this research, two main implications emerge:

1. In construction firms, it is crucial to pay attention to the role of various positions. As shown in this research, not everyone aims for a higher managerial position or wants to leave behind work at the construction site. Quite the contrary: On-site work should be appreciated and branded in a new way, namely how to become a skilled manager who is familiar with construction processes and able to lead work on site. Finding meaning in on-site work arises from the ability to accumulate psychological and social capital; if the career goal is more hierarchical, these capitals remain equally valuable.

2. The attractiveness of managerial careers in the construction field should already be emphasized before university studies. The career opportunities should be better described and discussed. In addition, the nature of the work, both on-site and in higher managerial positions, needs more attention from career counselors: The positive sides of both should be discussed. In general, the pride gained by working in the construction field can be best explained through narrative research findings such as those presented here.

We suggest that construction education should emphasize the collective professional pride of the construction industry, for example by familiarizing students with various development options and supporting their reflection on their own measures of success. Generally, appreciation of all the aspects of multidirectional career development (including development in the tasks and expertise, not just to various leadership positions) should be highlighted to strengthen commitment to and pride in construction work.

References

Baruch, Y. (2004). Transforming careers from linear to multidirectional career paths: Organizational and individual perspectives. *Career Development International*, *9*(1), 58–73. https://doi.org/10.1108/1362043041051814

Baruch, Y., & Bozionelos, N. (2011). Career issues. In S. Zedeck (Ed.), *APA handbook of industrial and organizational psychology. Selecting and developing members for the organization* (pp. 67–113). American Psychological Assosiation. https://doi.org/10.1037/12170-003

Borg, J., & Scott-Young, C. M. (2022). Supporting early career project managers in construction: a multi-vocal study. *Engineering, Construction and Architectural Management*, Vol. 29 No. 10, pp. 3830-3846. https://doi.org/10.1108/ECAM-06-2021-0487

Brinkmann, S. (2018). The Interview. In N. K. Denzin, & Y. S. Lincoln (Eds.), *The SAGE Handbook of Qualitative Research* (5th ed., pp. 576–599). SAGE Publications.

Bryan, J., Moore-Thomas, C., Day-Vines, N. L., & Holcomb-McCoy, C. (2011). School counselors as social capital: The effects of high school college counseling on college application rates. *Journal of Counseling & Development*, 89(2), 190–199. https://doi.org/10.1002/j.1556-6678.2011.tb00077.x

Byers, A. (2016). A career as a construction manager. The Rosen Publishing Group. Retrieved from: https://archive.org/details/careerasconstruc0000byer

Cohen, L., Duberley, J., & Mallon, M. (2004). Social constructionism in the study of career: Accessing the parts that other approaches cannot reach. *Journal of Vocational Behavior*, 64(3), 407–422. https://doi.org/10.1016/j.jvb.2003.12.007

Dainty, A., Green, S., & Bagilhole, B. (Eds.) (2007). *People and culture in construction*: A Reader (1st ed.). Routledge. https://doi.org/10.4324/9780203640913

Elsafty, A., Abadir, D., & Shaarawy, A. (2020). How does the entrepreneurs' financial, human, social and psychological capitals impact entrepreneur'S success? *Business and Management Studies, 6*(3), 55–71. Redfame Publishing Inc. https://doi.org/10.11114/bms.v6i3.4980

Francis, V., & Prosser, A. (2013). Exploring vocational guidance and gender in construction. *International Journal of Construction Education and Research*, *10*(1), 39–57. http://dx.doi.org/10.1080/15578771. 2012.744371

Gajjar, D., Sullivan, K., & Bonilla, A. (2019, April 10-13). Study of construction industry workforce: Measuring employee satisfaction for construction career insight. [Conference paper] 55th ASC Annual International Conference. Denver, CO. http://ascpro0.ascweb.org/archives/cd/2019/paper/ CPRT265002019.pdf

Ganiron, Jr., & Tomas, U. (2013). Social capital and career success of civil engineers towards designing career paths. *Procedia – Social and Behavioral Sciences*, 102, 611–621. https://doi.org/10.1016/j.sbspro.2013.10.778

Guthrie, K. (2022). (Re)fractional narrative inquiry: A methodological adaptation for exploring stories. *Methodological Innovations*, *15*(1), 3–15. https://doi.org/10.1177/20597991221077902

Hall, D. T., & Chandler, D. E. (2005). Psychological success: When the career is a calling. *Journal of Organizational Behavior*, *26*(2), 155–176. http://dx.doi.org/10.1002/job.301

Hillebrandt, P. M. (2000). *Economic theory and the construction industry*. MacMillan Publishers Ltd.

Horst, R. (2021). Narrative futuring: An experimental writing inquiry into the future imaginaries. *Art/Research International, A Transdisciplinary Journal, 6*(1), 32–55. http://dx.doi.org/10.18432/ari29554

Karima, S., Uusiautti, S., & Määttä, K. (2022). "Internal burn to move on": Millennial leaders' challenges and resources at work. *International Journal of Business and Management, X*(1), 59–77. https://doi.org/10.20472/BM.2022.10.1.003

Katajisto, M., Hyvärinen, S., & Uusiautti, S. (2021). Changes in Finnish ninth graders' positive psychological capital (PsyCap) in a strength-based student guidance intervention. *International Journal of Adolescence and Youth, 26*(1), 321–339. https://doi.org/10.1080/02673843.2021.1943469

Lingard, H., & Francis, V. (2008). An exploration of the adaptive strategies of working families in the Australian construction industry. *Engineering, Construction and Architectural Management*, 15(6), 562–579. https://doi.org/10.1108/09699980810916997

Luthans, F., Luthans, K., & Luthans, B. (2004). Positive psychological capital: Beyond human and social capital. *Business Horizons*, 47(1), 45–50. https://doi.org/10.1016/j.bushor.2003.11.007

Luthans, F., & Youssef-Morgan, C. M. (2017). Psychological capital: An evidence-based positive approach. *Annual Review of Organizational Psychology and Organizational Behavior*, 4, 339–366. https://doi.org/10.1146/annurev-orgpsych-032516-113324

Löwstedt, M., & Räisänen, C. (2014). Social identity in construction: Enactments and outcomes. *Construction Management and Economics*, *32*(11), 1093–1105, http://dx.doi.org/10.1080/01446193. 2014.956132

MacDonald, F., & Durdyev, S. (2021). What influences women to study architectural, engineering or construction (AEC) majors? *Journal of Civil Engineering Education*, 147(2). https://doi.org/10.1061/(ASCE)EI.2643-9115.0000035

Ministry of Economic Affairs and Employment of Finland. (2022). *Occupational Barometer*. https://tem.fi/en/-/occupational-barometer-number-of-occupations-suffering-from-labour-shortage-has-risen-to-pre-covid-level

Mäki, T. (2021). "Se on ihmisten kanssa tehtävää työtä": toiminnanteoreettinen tutkimus työmaan työnjohdon työstä, yhteistyöstä ja uusista välineistä rakennushankkeessa. ["It's work done with people". An activity-theoretical study of site managers' daily work, collaboration and new tools in construction projects.] [Academic dissertation]. University of Helsinki. http://urn.fi/URN:ISBN:978-951-51-7656-1

Naoum, S. G., Harris, J., Rizzuto, J., & Egbu, C. (2020). Gender in the construction industry: Literature review and a comparative survey of men's and women's perceptions in UK construction consultancies. *Journal of Management in Engineering*, 36(2). https://doi.org/10.1061/(ASCE)ME.1943-5479.0000731

Opoku, A., & Fortune, C. (2011, June). Leadership in construction organizations and the promotion of sustainable practices. [Conference paper]. Conference: Proceedings of CIB international Conference of W055, W065, W089, W112, TG76, TG78, TG81, Management and Innovation for a Sustainable Built Environment. Amsterdam, The Netherlands. https://www.researchgate.net/publication/265212023_Leadership_in_construction_organizations_and_the_promotion_of_sustainable_practices/stats

Peterson, C. (2006). A Primer in Positive Psychology. New York, NY: Oxford University Press.

Polkinghorne, D.E. (1995). Narrative configuration in qualitative analysis. In J. A. Hatch, & R.Wisniewski (Eds.), *Life History and Narrative. Qualitative Studies Series* (pp. 5–25). The Falmer Press. https://www.tandfonline.com/doi/abs/10.1080/0951839950080103

Raiden, A. (2016). Horseplay, care and hands-on hard work: Gendered strategies of a project manager on a construction site. *Construction Management and Economics*, 34(7–8), 508–521. https://doi.org/10.1080/01446193.2016.1182637

Rautio, K. (2022). Success at work and its preconditions in construction site managers' career stories. In S. Hyvärinen, T. Äärelä, & S. Uusiautti (Eds.), *Positive education and work: Less struggling*,

more flourishing (pp. 121–148). Cambridge Scholars Publishing.

Redecopp, D. E., & Huston, M. (2019). The broader aims of career development: Mental health, wellbeing and work. *British Journal of Guidance & Counselling*, 47(2), 246–257 https://doi.org/10.1080/03069885.2018.1513451

Seligman, M. (2011) Flourish. A visionary new understanding of happiness and well-being. New York: Atria Paperback.

Shuman, A. (2015). Story ownership and entitlement. In A. De Fina, & A. Georgakopoulou (Eds.), *The handbook of narrative analysis* (pp. 38–56). John Wiley and Sons.

Slembrouck, S. (2015). The role of the researcher in the interview narratives. In A. De Fina, & A. Georgakopoulou (Eds.), *The handbook of narrative analysis* (pp. 239–254) John Wiley and Sons.

Squire, C., Andrews, M., Davis, M., Esin, C., Harrison, B., Hydén, L. C., & Hydén, M. (2014). What is narrative research? (p. 144). Bloomsbury Academic. https://library.oapen.org/handle/20.500.12657/58773

Styhre, A. (2011). The overworked site manager: Gendered ideologies in the construction industry. *Construction Management and Economics*. 29(9), 943–955. http://dx.doi.org/10.1080/01446193.20 11.588955

Toor, S. R., & Ofori, G. (2008). Leadership for future construction industry: Agenda for authentic leadership. *International Journal of Project Management* 26(6), 620–630. https://doi.org/10.1016/j.ijproman.2007.09.010

Torres-Machí, C., Carrión, A., Yepes, V., & Pellicer, E. (2013). Employability of graduate students in construction management. *Journal of Professional Issues in Engineering Education and Practice*, 139(2), 163–170. https://doi.org/10.1061/(ASCE)EI.1943-5541.0000139

Uusiautti, S., Hyvärinen, S., & Äärelä, T. (2020). Positiivisen kasvatuksen tutkimuksen merkitys. *Kasvatus: Suomen kasvatustieteellinen aikakauskirja*, 51(5), 535–538.

Uusiautti, S., & Määttä, K. (2015). The psychology of becoming a successful worker: Research on the changing nature of achievement at work. Routledge/Taylor & Francis Group.

Wilkes, J. T., Nobe, M. C., Clevenger, C. M., & Cross, J. E. (2015). Needs assessment: Identifying and addressing high school counselors' perceptions of construction management. *International Journal of Construction Education and Research*, 11(3), 196–217. http://dx.doi.org/10.1080/15578771.20 14.987360

Wu, G., Hu, Z., & Cheng, J. (2019). Role stress, job burnout, and job performance in construction project managers: The moderating role of career calling. *International Journal of Environmental Research and Public Health*, *16*(13), 2394. https://doi.org/10.3390/ijerph16132394

