

Metadata form of the Silva Fennica article Manninen H., Lehtimäki H., Kilpeläinen R., Lautanen E., Kärhä K. (2024). The qualifications and competence in supervisory and management skills among recently graduated Finnish forestry professionals. *Silva Fennica* vol. 58 no. 4 article id 24007. <https://doi.org/10.14214/sf.24007>

This form is designed for writing the elements of metadata, which are used in the description of research materials such as data and codes. The form is based on the work done in the Work Group “Description of research materials” under the Finnish Open Science Coordination.

Item	Description	Responsible
<i>Name of the data / code</i>	Vuosina 2018–2021 valmistuneiden metsänhoitajien ja metsätalousinsinöörien kokemukset johtajuudesta ja sen opetuksesta / Experiences of Finnish forestry engineers and Master of Forestry graduates graduated between 2018–2021 about leadership and education of it	Author
<i>Author & ORCID</i>	Manninen Heikki, ORCID 0009-0001-4234-7649	Author
<i>Authors' affiliation(s)</i>	University of Eastern Finland, https://ror.org/00cyydd11	Author
<i>Owner of the material</i>	Author	Author
<i>Publisher</i>	-	Author
<i>Funder</i>	Metsämiesten Säätiö Foundation	Author
<i>Description</i>	<p>The data consist of answers of 318 highly educated Finnish foresters (Bachelor of Natural Resources or Master of Forestry) to the survey of 21 questions. The respondents were graduated from Finnish higher education institutes between 2018–2021. The questionnaire comprised of multiple and open-ended questions about respondents' background, supervisory and managerial duties, and evaluated importance of and competence in supervisory and managerial skills in their work.</p> <p>The data was collected for to investigate the importance of different supervisory and management skills and possible competence gaps in these skills among Finnish early-career forestry professionals. In addition, the aim of the survey was to expand knowledge of what kind of education on supervisory and managements skills should be included in higher forestry education and how it could be developed.</p>	Author
<i>Methods</i>	<p>The study population was recently graduated forestry professionals who obtained the title of Finnish forestry engineer (i.e., Bachelor of Natural Resources) or Master of Forestry (i.e., M.Sc. (For.)) who graduated between 2018–2021. The population size was 1,046 people, comprising 771 forestry engineers and 275 Master's of Forestry graduates.</p> <p>The data was collected by a Webropol survey, which was open for answering from 28th February to 10th April 2023 as part of a larger data-gathering effort. The respondents were invited to participate in the survey via personal letter. The size of the sampling group was kept as parallel and large as the population as possible. However, deceased people, those living abroad, and people who were forbidden to disclose their contact details by the Digital and Population Data Services Agency were excluded from the sample group. Consequently, the invite letters were sent to 868 respondents (83.0% of the population) in February 2023. Reminder letters were also sent three weeks after the first letter.</p> <p>The questionnaire was built using the Webropol tool and consisted of 21 questions. Statistical analysis of the data was made using IBM SPSS Statistics 28.0 software. Answers from the last two open-ended questions were gathered in ATLAS.ti software.</p>	Author

<i>Variables</i>	Age (Q1), Gender (Q2), HEI from which graduated (Q3), Year of graduation (Q4), Type of execution of studies (Q5), Employment situation (Q6), Employer (*if in the field of forestry) (Q7), Employer's field (*if in the non-forestry field) (Q8), Work experience before/after graduation (Q9), Work experience in supervisory position etc. before/after graduation (Q10), Supervisory or managerial duties in current position (Q11), Number of subordinates (Q12), Number of indirect subordinates in networks etc. (Q13), Importance of and own competence in supervisory skills (Q14), Importance of and own competence in management skills (Q15), Contributors of supervisory and managements skills (Q16), Open question about skill contribution (Q17), Post-graduation education activities (Q18), Name of education (*if attended in Q18)(Q19), Justification for post-graduation education (*if attended in Q18) (Q20), "Free words" (Q21)	Author
<i>Author keywords</i>	Supervisory skill, managerial skill, higher forestry education, forestry engineer, Master of Forestry	Author
<i>Vocabulary keywords (community standard)</i>	-	Author
<i>Discipline</i>	-	Archive/Repository/Publisher
<i>Type of material</i>	Research data	Author
<i>Language</i>	fin	Author
<i>Time range covered</i>	2023-02-28–2023-04-10	Author
<i>Geographic region</i>	FIN 246	Author
<i>Version</i>	-	Author
<i>File format(s)</i>	.csv	Author
<i>Availability of the materials (open, embargo, registration, limited, registration required)</i>	Access to the data is restricted. The data contain personal data, which cannot be disclosed. Anonymized data cannot publish until the entire research project is finished.	Author
<i>Justification for access restrictions</i>	The data contain personal data, which cannot be disclosed. Anonymized data cannot publish until the entire research project is finished.	Author
<i>Licence</i>	-	Author
<i>Connections with other research materials</i>	-	Author
<i>Access to the connected research materials</i>	-	Author
<i>Codes only: hardware/ software requirements for running the code</i>	-	Author
<i>Connections to other products of research</i>	-	Author
<i>Personal data</i>	Keeper of the registry: Heikki Manninen The data contain personal information on people: age, gender, educational background, situation of employment, work experience, the respondents' own experiences and evaluations of supervisory and managerial skills, and education of them.	Author
<i>Confidential or secret data</i>	-	Author
<i>Publication date</i>	-	Archive/Repository/Publisher

<i>Preservation policy</i>	Research data will be preserved during the research project and five years after it until the end of 2030. From that on anonymized data will be preserved with open access. The preservation policy is determined in the privacy statement of the research project.	Author
<i>Permanent identifier (PID)</i>	-	Archive/Repository/Publisher