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Research Article

Finnish Teachers' Ethical Sensitivity

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The study examined the ethical sensitivity of Finnish teachers ($N = 864$) using a 28-item Ethical Sensitivity Scale Questionnaire (ESSQ). The psychometric qualities of this instrument were analyzed, as were the differences in self-reported ethical sensitivity between practicing and student teachers and teachers of different subjects. The results showed that the psychometric qualities of the ESSQ were satisfactory and enabled the use of an explorative factor analysis. All Finnish teachers rated their level of ethical sensitivity as high, which indicates that they had internalized the ethical professionalism of teaching. However, practicing teachers' assessments were higher than student teachers'. Moreover, science as a subject was associated with lower self-ratings of ethical sensitivity.

1. Introduction

The Finnish education system endeavors to support the development of the whole person rather than only the cognitive domain [1]. This challenges Finnish teacher education to educate teachers to see their role as holistic and with clear educational purposes [2]. Our education is research-based, with the requirement that students exhibit a sound knowledge of recent advances in teaching and learning. Most teachers in Finland are similarly educated and qualified. In principle, the requirement for teaching is a master's degree in a given field and both a theoretical and practical approach to teaching. This teachers' knowledge includes skills in ethical reflection on teaching as well as ethical competence in intercultural encounters.

In Finland, the professional ethical codes for teachers clarify the teachers' roles and relationships in their work [3]. The Finnish guidelines for teacher's professional ethics emphasize ethical sensitivity in the teacher-pupil relationship. The teacher is urged to strive to understand the learner's point of departure, thoughts and opinions and to handle his or her personal and private matters tactfully. The teacher is also expected to give special attention to learners who need particular care and protection and not to tolerate the exploitation or abuse of learners in any form. The code also acknowledges that the younger the learner with whom the teacher is working, the greater the teacher's responsibility for the learner becomes. This means that the teacher works together with the adults responsible for the child [3, 4]. We know from previous empirical research concerning Finnish teachers that they value professional commitment in terms of caring and cooperation in critical work situations [5, 6]. We also know that students benefit both socially and academically when they are supported by a caring classroom and school environment [7, 8].

Despite the high quality of the Finnish teacher education, in studies by the Finnish Institute of Occupational Health, Finnish students assessed their school atmosphere and environment quite negatively. In the HBSC study 2001/02 comparing school satisfaction in 35 countries, Finland was situated in last place, with only 4.2% of the pupils reporting that they liked school very much [9]. The recent school shootings in Finland have also raised awareness of the issue of well being in schools.

It seems that in the Finnish educational system we have not acknowledged certain aspects of life and have assumed perhaps too easily that moral knowledge and reasoning lead to moral action [10, 11]. However, recent psychological research argues that the link between moral reasoning and moral behavior is weak [10]. Instead, tacit, implicit, and

automatic cognitive processes govern human functioning, with unconscious processing being dominant and conscious processing being of secondary importance [12]. This applies also to morals, which function similarly as intuition. As a tool for moral education that pays attention to both reasoning and intuition, Narváez [13] created the integrative ethical education (IEE) model. It combines rational moral education, representing Kant's philosophy, and traditional character and intuition education, representing Aristotle's. The IEE model acknowledges the importance of Kant's universal ethical principles as a top-down approach. It also highlights Aristotle's bottom-up stance where the environment's role is seen as essential in developing morals and virtues.

In addition, integrative ethical education is built on the notion of expertise development. Experts differ from novices in three ways: first, experts have more knowledge, and it is organized; second, experts perceive and react to the world differently; third, experts behave differently. Through rigorous practice their skills have become highly automatic and effortless whereas the opposite is true for novices. As with any skills, ethical skills, too, can be learned and developed [13].

According to Narváez [13], moral experts demonstrate holistic orientations in one or more of the four processes or skills: ethical sensitivity, ethical judgment, ethical motivation, and ethical action [14]. Even though all of these skills are essential; the most important is ethical sensitivity, since it is needed in noticing and understanding ethical problems and their cues. "Ethical sensitivity is the emphatic interpretation of a situation in determining who is involved, what actions to take, and what possible reactions and outcomes might ensue" [14]. Therefore the *eyes* symbolize ethical sensitivity. Even though it is influenced by ethical motivation (the *heart*; prioritizing ethical goals) and ethical judgment (the *brain*; ethical reasoning as a tool for solving problems); ethical sensitivity can be seen as preceding these as well as ethical action (the *hands*; courage to intervene, staying with the task) [14]. Because of the centrality of ethical sensitivity in general, and especially in schools as a key component of teachers' moral competence, this paper examines the ethical sensitivity of Finnish teachers ($N = 864$).

2. Measuring Ethical Sensitivity

Ethical sensitivity's increased importance as a research domain has been accompanied by a growing number of tests of ethical sensitivity. However, most of these are context-specific (see [15]), for example relating to medicine and dental education [16], to racial and gender intolerance [17], or to science [18, 19]. In addition, these instruments include videotaped dilemmas [17], written dilemmas [16], or written scenarios [18, 19] that participants evaluate. In turn, researchers rate these evaluations. Therefore we have developed an instrument that operates on a general level according to Narváez's theory [20]. It can be used in all contexts and can be employed as a self-evaluation tool [21, 22]. Narváez's [20] operationalization of ethical sensitivity has guided our Ethical Sensitivity Scale Questionnaire (ESSQ) development work.

According to Narváez [14, 20], ethical sensitivity includes seven skills: (1) *reading and expressing emotions* mean understanding and identifying your and others' emotional expressions, as well as learning when and how to appropriately express your emotions and manage aggression; (2) *taking the perspectives of others* refers to the ability to take an alternative perspective, for example that of someone in or outside of one's cultural group, or of people who are less fortunate; (3) *caring by connecting to others* "involves expanding the sense of self-concern to include others," and showing care; (4) *working with interpersonal and group differences* includes perceiving and responding to diversity, as well as becoming multicultural so that one is able to shift from using one culture code to using another; (5) *preventing social bias* involves identifying, understanding, actively countering, and controlling bias; (6) *generating interpretations and options* means having the skills to respond creatively, since "people often repeat the same mistakes because they respond automatically without considering another way to behave;" (7) *identifying the consequences of actions and options* (identifying the consequences of actions and options [20] was later modified into communicating well [14]).

The ESSQ instrument has previously been tested with Finnish seven- to ninth-grade students [21–23] and Iranian Kurdish teachers [15]. These earlier studies using the ESSQ showed that female students estimated their ethical sensitivity skills higher than their male peers did [21, 22]. This tendency can be explained by the nature of the items measuring ethical sensitivity skills. Most measure caring ethics as well as emotional and social intelligence, since Narváez's definition of ethical sensitivity has common features with the manifestation of Gardner's [24] intrapersonal and interpersonal intelligences, which include the ability to identify and understand different feelings and motives in oneself and in others. The concept of ethical sensitivity is also in concordance with Goleman's [25] concept of emotional intelligence, which refers to a meta-ability of emotional aptitude that determines how well we can use whatever other skills we have. In earlier Finnish studies both sixth- and ninth-grade girls were shown to be more care oriented in their moral orientation than their male peers of the same age, who were clearly more justice oriented [26].

With the ESSQ we also found that academically gifted students estimated their ethical skills higher than did students of average ability [21, 22], which supports the notion of other researcher's that gifted students are more mature in their moral thinking because of their precocious intellectual development [27–29]. In the sample of Iranian Kurdish teachers the ESSQ revealed that the ethical sensitivity of primary and secondary school teachers was higher than that of high school teachers [15], thus indicating a caring ethos, which has been found to be particularly important for teachers of lower grades [30]. In the light of the previous studies the ESSQ seems to possess construct validity, indicating convergent validity that expresses the extent to which scores for the measure in question are related to scores for other measures [31, pages 101–104]. The results of previous studies also reflect the concurrent validity [31, pages 101–104], or

Table 1: The Ethical Sensitivity Scale Questionnaire (ESSQ).

Item/label	*M* (SD)
(1) Reading and expressing emotions	
es1_1/In conflict situations, I am able to identify other persons' feelings.	*4.0 (0.6)*
es1_2/I am able to express my different feelings to other people.	4.0 (0.7)
es1_3/I notice if someone working with me is offended by me.	*4.0 (0.6)*
es1_4/I am able to express to other people if I am offended or hurt because of them.	3.3 (0.9)
(2) Taking the perspectives of others	
es2_5/I am able to cooperate with people who do not share my opinions on what is right and what is wrong.	4.2 (0.6)
es2_6/I tolerate different ethical views in my surroundings.	4.1 (0.7)
es2_7/I think it is good that my closest friends think in different ways.	4.2 (0.5)
es2_8/I also get along with people who do not agree with me.	4.2 (0.6)
(3) Caring by connecting to others	
es3_9/I am concerned about the well being of my partners.	4.0 (0.6)
es3_10/I take care of the well being of others and try to improve it.	4.3 (0.6)
es3_11/In conflict situations I do my best to take actions that aim at maintaining good personal relationships.	4.3 (0.6)
es3_12/I try to have good contact with all the people I am working with.	*4.2 (0.7)*
(4) Working with interpersonal and group differences	
es4_13/I take other peoples' points of view into account before making any important decisions in my life.	*3.8 (0.8)*
es4_14/I try to consider another person's position when I face a conflict situation.	4.0 (0.6)
es4_15/When I am working on ethical problems I consider the impact of my decisions on other people.	4.1 (0.6)
es4_16/I try to consider other peoples' needs, even in situations concerning my own benefits.	4.1 (0.6)
(5) Preventing social bias	
es5_17/I recognize my own bias when I take a stand on ethical issues.	3.9 (0.7)
es5_18/I realize that I am tied to certain prejudices when I assess ethical issues.	4.0 (0.8)
es5_19/I try to control my own prejudices when making ethical evaluations.	4.0 (0.7)
es5_20/When I am resolving ethical problems I try to take a position evolving out of my own social status.	3.7 (0.8)
(6) Generating interpretations and options	
es6_21/I contemplate on the consequences of my actions when making ethical decisions.	4.2 (0.6)
es6_22/I ponder on different alternatives when aiming at the best possible solution to an ethically problematic situation.	4.2 (0.6)
es6_23/I am able to create many alternative ways to act when I face ethical problems in my life.	3.7 (0.7)
es6_24/I believe there are several right solutions to ethical problems.	*4.0 (0.8)*
(7) Identifying the consequences of actions and options	
es7_25/I notice that there are ethical issues involved in human interaction.	4.1 (0.7)
es7_26/I see a lot of ethical problems around me.	3.5 (1.0)
es7_27/I am aware of the ethical issues I face at school.	3.9 (0.6)
es7_28/I am better than other people in recognizing new and current ethical problems.	3.0 (0.8)

Note: Items in italics were not accepted for the final model. Items es1_1, es1_3, es4_13, and es6_24 with lowest values in extraction communalities were removed, so that the determinant was $p = .001$. In addition, item es3_12 was deleted because the factor loading of the item was lower than .30.

known groups criterion [32, pages 173, 177], which reflects whether two or more groups of people differ in expected ways with respect to the measure.

In this study we measure Finnish teachers' ethical sensitivity with the ESSQ instrument we have developed and explore the possible explanations of our empirical findings within the context of teacher education. We continue to examine the construct validity of the ESSQ with the known group validation strategy regarding differences in ethical sensitivity between experienced and inexperienced teachers. The IEE as a theory includes the idea of novices and experts, where children are naturally seen as novices and in need of the expert guidance and role models provided by teachers [13]. In teacher development theories it is also acknowledged that inexperienced teachers are novices and differ from experienced expert teachers for example in their ability to concentrate on interaction and students' learning processes [33]. Therefore our first hypothesis is that there should be a difference in ethical sensitivity self-estimations between novice and expert teachers, meaning that experts should have higher ethical sensitivity than novices. Secondly, we look at the differences between teachers of different subjects. Based on previous research which has found science students' ethical sensitivity to be lower than that of other students [[18, 19], see also [34]], our second hypothesis is that science teachers' ethical sensitivity is lower than that of other teachers'.

Table 2: Means, alpha loadings, and correlations of the dimensions of the ESSQ.

Dimensions and items	M (SD)	α	1	2	3	4	5	6	7
(1) Reading and expressing emotions es1_2, es1_4	3.6 (0.7)	.56	—						
(2) Taking the perspectives of others es2_5, es2_6, es2_7, es2_8	4.2 (0.5)	.80	.2	—					
(3) Caring by connecting to others es3_9, es3_10, es3_11	4.2 (0.5)	.67	.2	.4	—				
(4) Working with interpersonal and group differences es4_14, es4_16	4.0 (0.5)	.63	.2	.4	.5	—			
(5) Preventing social bias es5_17, es5_18, es5_19, es5_20	3.9 (0.5)	.72	.2	.3	.3	.5	—		
(6) Generating interpretations and options **es4_15**, es6_21, es6_22, es6_23	4.1 (0.5)	.74	.2	.4	.4	.6	.5	—	
(7) Identifying the consequences of actions and options es7_25, es7_26, es7_27, es7_28	3.6 (0.6)	.66	.2	.1	.2	.3	.4	.4	—

Table 3: Teaching career stage-related differences in ethical sensitivity.

Dimension	Practicing M (SD) ($n = 522$)	Student M (SD) ($n = 342$)	Levene's test p	$t(p)$	η^2
(1) Reading and expressing emotions	3.7 (0.6)	3.6 (0.7)	.007	−2.306 (.021)	0.01
(2) Taking the perspectives of others	4.2 (0.5)	4.1 (0.5)	.974	−2.578 (.010)	0.01
(3) Caring by connecting to others	4.2 (0.5)	4.2 (0.5)	.413	.007 (.994)	
(4) Working with interpersonal and group differences	4.0 (0.5)	4.0 (0.6)	.113	−1.509 (.132)	
(5) Preventing social bias	3.9 (0.5)	3.8 (0.6)	.327	−1.741 (.082)	
(6) Generating interpretations and options	4.0 (0.5)	4.1 (0.5)	.728	.732 (.465)	
(7) Identifying the consequences of actions and options	3.7 (0.6)	3.6 (0.6)	.869	−.750 (.454)	

Effect sizes (η^2) were calculated with the formula $(t^2)/(t^2 + (n_1 + n_2 - 2))$.

In addition, the study continues to explore the psychometric qualities of the ESSQ, which in the light of previous results have shown the operationalization of the ethical sensitivity model to be promising and satisfactory [15, 21, 22]. In the original study [21, 22] an exploratory factor analysis was not conducted even though it is an important tool for examining the construct of the chosen items. In this paper the factor analysis is explorative, however, and also confirmatory in a way, because the instrument is based on a theoretical model of Narváez's operationalization.

All in all, the ethical sensitivity of self-assessments of Finnish teachers ($N = 864$) is studied in this paper with the following three research questions: (1) what are the psychometric qualities of the instrument with this population? and what, if any, are the differences in self-reported ethical sensitivity between (2) practicing and student teachers and (3) teachers of different subjects?

3. Method

3.1. Sample. A nonprobability sample ($N = 864$) was collected with an Ethical Sensitivity Scale Questionnaire (ESSQ) during the spring and autumn semesters of 2011. Each respondent was personally invited to complete the Internet version of the questionnaire. The participants were asked to evaluate their attitude towards the statements measuring ethical sensitivity.

Of the teacher sample, 60 per cent were practicing teachers ($n = 522$) and 40 per cent were student teachers ($n = 342$) at the beginning of their pedagogical studies at the University of Helsinki. Altogether 667 (77%) of the teachers were female and 197 (23%) male. The sample consisted of current and future early education and elementary school class teachers ($n = 302$, 35%) as well as lower and upper secondary school subject teachers ($n = 562$, 65%). The latter were teachers of science ($n = 141$, 16%), social science (religion, history, philosophy, and psychology) ($n = 123$, 14%), languages ($n = 176$, 20%), and other subjects (e.g., art, home economics, crafts, and physical education) ($n = 122$, 22%).

3.2. The Ethical Sensitivity Scale Questionnaire. The ESSQ [22] is based on Narváez's operationalization of ethical sensitivity [20]. The instrument consists of 28 items on a Likert scale of 1 (*totally disagree*) to 5 (*totally agree*) (Table 1). The items have been designed to apply to people from different background and cultures. This allows for the use of the instrument in a multicultural society and in cross-cultural studies. The statements describe the issues and values that the respondent considered personally important. Each of the seven dimensions has been operationalized with four statements. All items, with means and standard deviations, are listed in Table 1.

3.3. Statistical Analyses. The psychometric qualities of the instrument were examined in three stages. First, the psychometric properties of the seven dimensions of the ESSQ's 28 ethical sensitivity items were investigated. Second, the structure of the items was analyzed with an exploratory factor analysis (EFA). Third, the reliability of the ESSQ indicators was analyzed by Cronbach's alpha [35, pages 169–170].

Table 4: Subject-related differences in ethical sensitivity.

	EE 302 (35) M (SD)	Science 141 (16) M (SD)	Social science 123 (14) M (SD)	Language 176 (20) M (SD)	Other 122 (14) M (SD)	Levene's test p $F(p)$, η_p^2
(1) Reading and expressing emotions	3.7 (.7)	3.6 (.7)	3.7 (.7)	3.6 (.7)	3.8 (.6)	.220 1.568, (.181), .01
(2) Taking the perspectives of others	4.2 (.5)	4.2 (.5)	4.2 (.5)	4.1 (.5)	4.2 (.5)	.615 .811, (.518), .004
(3) Caring by connecting to others	4.2 (.4)	4.1 (.5)	4.1 (.5)	4.2 (.5)	4.2 (.5)	.429 3.855, (.004), .02
(4) Working with interpersonal and group differences	4.1 (.05)	4.0 (.6)	4.1 (.5)	4.1 (.5)	4.1 (.5)	.726 1.391, (.235), .01
(5) Preventing social bias	3.8 (.5)	3.8 (.6)	4.0 (.5)	3.9 (.5)	4.0 (.6)	.374 3.937, (.004), .02
(6) Generating interpretations and options	4.0 (.5)	4.0 (.5)	4.1 (.4)	4.1 (.5)	4.1 (.5)	.900 2.026, (.089), .01
(7) Identifying the consequences of actions and options	3.6 (.6)	3.6 (.5)	3.8 (.6)	3.6 (.6)	3.8 (.5)	.817 5.376, (.000), .02

The differences in self-reported ethical sensitivity were examined by comparing the means of the dimensions with t-tests, with the stage of teaching (practicing/student teacher) as grouping variables. The differences between teachers of different school levels and subjects were examined with a test of variance (ANOVA) applying subjects as fixed factors.

4. Results

4.1. The Psychometric Properties of the ESSQ Instrument

4.1.1. Correlation Analysis of the Ethical Sensitivity Scale. The first task of the statistical analysis was to investigate the psychometric properties of the ESSQ items. After four items (es1_1, es1_3, es4_13, es6_24) with the lowest values in extraction communalities were removed in iterative style, the determinant was .001. The Kaiser-Meyer-Olkin (KMO) test result was acceptable, with a value of .882. According to Tabachnick and Fidell [36, page 614], values of .60 and above are required for good EFA. The Bartlett's test of sphericity was significant ($p = .000$). These tests showed that we were able to conduct an exploratory factor analysis.

4.1.2. Factor Structure and Reliabilities of the Ethical Sensitivity Scale. The exploratory factor analysis was executed by Maximum Likelihood extraction with a Direct Oblimin rotation. The sample revealed the presence of six factors with Eigen values exceeding 1 [37]. Cattell's scree plot [38] brought forth six to eight factors. The six-factor solution explained 44% of the variance and seven factor 46%. In both the six- and seven-factor solutions all 24 items loaded accordingly with Narváez's theory, except items of dimension *4 working with interpersonal and group differences* which loaded in the six-factor solution on dimensions *3 caring by connecting to others* and *6 generating interpretations and options*. In the seven-factor solution item es4_15 loaded on dimension *6 generating interpretations and options*, but items es4_14 and es4_16 loaded on the first factor (see Table 5). In the seven-factor solution item es3_12 was not accepted for the final model, since the factor loading was not over .30. All in all, the seven-factor solution was chosen for the analysis, and 23 items from the original 28 were selected to represent the Ethical Sensitivity Scale.

The psychometric properties of the ESSQ items were further examined by reliability analysis [35]. The alpha loadings and correlations between the ESSQ dimensions are presented in Table 2. The reliabilities in the sample ranged from .56 to .80. Dimension *2 taking the perspectives of others* had the highest reliability ($\alpha = .80$) while dimensions *1 reading and expressing emotions* ($\alpha = .56$) and *4 working with interpersonal and group differences* ($\alpha = .63$) had the lowest. These dimensions included only two items, which lowered the reliability values. Dimension *4 working with interpersonal and group differences* correlated with dimensions *3 caring by connecting to others* ($r = .5$), *5 preventing social bias* ($r = .5$), and *6 generating interpretations and options* ($r = .6$). In addition, dimensions 5 and 6 correlated with each other firmly ($r = .5$). These correlations were strong, since according to Cohen a correlation above |.50| is considered large [39].

Both the alpha values and correlations support the suggestion that adjustments are needed to improve the ESSQ. Modification is required regarding dimensions *1 reading and expressing emotions* and *4 working with interpersonal and group differences* in order to increase the communality and stability of the items. In addition, the ESSQ's number of dimensions should be discussed and further researched. However, the present analysis of the psychometric properties indicates that the ESSQ is already a satisfactory instrument (see also [15]).

Table 5: Factor loadings and extraction communalities.

	1	2	3	4	5	6	7	h^2
es4_14 I try to consider another person's position when I face a conflict situation.	**.507**	−.099	−.131	−.010	−.082	.060	−.109	.508
es4_16 I try to consider other peoples' needs, even in situations concerning my own benefits.	**.323**	−.002	−.266	.015	−.037	.188	−.165	.478
es2_6 I tolerate different ethical views in my surroundings.	−.036	**−.856**	.041	.059	.026	.031	.084	.670
es2_5 I am able to cooperate with people who do not share my opinions on what is right and what is wrong.	−.140	**−.781**	−.009	.027	.031	−.012	−.055	.593
es2_8 I also get along with people who do not agree with me.	.077	**−.594**	−.100	−.053	−.043	−.031	−.049	.470
es2_7 I think it is good that my closest friends think in different ways.	.099	**−.567**	.000	−.005	−.016	.053	.005	.386
es3_10 I take care of the well-being of others and try to improve it.	−.066	−.007	**−.844**	.043	−.029	.079	.000	.736
es3_9 I am concerned about the well-being of my partners.	−.011	−.016	**−.610**	.245	−.013	.008	.004	.466
es3_11 In conflict situations, I do my best to take actions that aim at maintaining good personal relationships.	.222	−.129	**−.384**	−.156	−.021	−.016	−.020	.335
es3_12 I try to have good contact with all the people I am working with.	*.159*	*−.216*	*−.293*	*−.076*	*.024*	*−.038*	*−.098*	*.295*
es1_4 I am able to express to other people if I am offended or hurt because of them.	−.027	−.016	−.017	**.661**	−.045	.024	.074	.439
es1_2 I am able to express my different feelings to other people.	.014	−.031	−.114	**.554**	.026	−.021	−.134	.401
es7_26 I see a lot of ethical problems around me.	−.044	.085	−.030	−.077	**−.720**	.037	.018	.515
es7_27 I am aware of the ethical issues I face at school.	−.062	−.031	−.103	.012	**−.544**	−.016	−.155	.404
es7_28 I am better than other people in recognizing new and current ethical problems.	.165	−.008	.056	.161	**−.511**	−.049	−.010	.340
es7_25 I notice that there are ethical issues involved in human interaction.	−.039	−.117	.046	−.026	**−.416**	.238	−.020	.333
es5_19 I try to control my own prejudices when making ethical evaluations.	−.008	−.049	−.052	.038	.065	**.671**	−.107	.545
es5_18 I realize that I am tied to certain prejudices when I assess ethical issues.	−.093	.002	−.014	−.067	−.146	**.611**	.036	.421
es5_17 I recognize my own bias when I take a stand on ethical issues.	.121	−.050	−.026	.027	.019	**.578**	−.150	.535
es5_20 When I am resolving ethical problems, I try to take a position evolving out of my own social status.	.296	−.002	.004	.110	.011	**.377**	−.026	.322
es6_22 I ponder on different alternatives when aiming at the best possible solution to an ethically problematic situation.	−.094	−.048	.042	−.011	−.017	.035	**−.786**	.608
es6_21 I contemplate on the consequences of my actions when making ethical decisions.	.004	.103	−.087	−.024	−.048	.079	**−.676**	.543
es4_15 When I am working on ethical problems I consider the impact of my decisions on other people.	.255	−.059	−.114	.032	−.012	.078	**−.420**	.501
es6_23 I am able to create many alternative ways to act when I face ethical problems in my life.	−121	−.110	.084	.108	−.096	.009	**−.389**	.299

Note: Item in italics was not accepted for the final model.

4.2. Career Stage-Related Differences in Teachers' Ethical Sensitivity. Overall, the teachers' rated their ethical sensitivity high (Tables 1 and 2), which might indicate a ceiling effect and restriction of range [18, 31]. They rated their skills most highly *in taking the perspective of others* and in *caring by connecting to others* (M = 4.2, SD = 0.5, resp.). They rated their skills to be the lowest in *reading and expressing emotions* (M = 3.6, SD = 0.7) and in *identifying the consequences of actions and options* (M = 3.6, SD = 0.6). These dimensions included the two lowest means of the individual items (Table 1): es1_4 "I am able to express to other people if I am offended or hurt because of them" (M = 3.3, SD = 0.9) and es7_28 "I am better than other people in recognizing new and current ethical problems"

($M = 3.0$, SD = 0.8). These low means might indicate the modest and reserved nature of Finnish people [40, 41]. Interestingly, Iranian Kurdish teachers' self-estimations reflected similar modesty when measured by the ESSQ [15]. Our instrument seems to have captured what G. Hofstede and G. J. Hofstede [42, pages 164–167], have referred to as "uncertainty avoidance," defined as "the extent to which the members of a culture feel threatened by ambiguous or unknown situations." Finland and Iran shared the same index score and rank and were among the countries with low to medium scores in uncertainty avoidance, which has been associated with high scores in agreeableness combining modesty, altruism, compliance, and tender mindedness [42, pages 168–172].

Differences in ethical sensitivity between practicing teachers ($n = 522$) and student teachers ($n = 342$) were analyzed by t-test. Practicing teachers rated statistically significantly higher their ability to *read and express emotions* ($t(655,294) = -2.306$, $p = .021$, $\eta^2 = .01$) ($M_{\text{Practicing teacher}} = 3.7$, SD = 0.6; $M_{\text{Student teacher}} = 3.6$, SD = 0.7) and rated themselves more able to *take the perspectives of others* ($t(862) = -2.578$, $p = .010$, $\eta^2 = .01$) ($M_{\text{Practicing teacher}} = 4.2$, SD = 0.5; $M_{\text{Student teacher}} = 4.1$, SD = 0.5) (Table 3). Even though these results show that the practicing teachers rated their ethical sensitivity higher than the student teachers did, it should be noted that the effect sizes are small and there are no differences between practicing and student teachers regarding the five other dimensions of ethical sensitivity. Still, the findings are in line with theories and previous empirical findings concerning the differences between experienced and novice teachers. Experienced teachers have been found to focus more on interacting with their students, which is close to ethical sensitivity and novice teachers to concentrate more on their own content knowledge and role as teachers [2, 33, 43, 44].

4.3. Subject-Related Differences in Ethical Sensitivity. We applied a one-way analysis of variation (ANOVA) in examining subject-related differences in ethical sensitivity. We compared the self-assessments of early education and elementary school class teachers (EE) and of subject teachers of science, social science, languages, and other subjects. Statistically significant differences were found in three of the dimensions: *caring by connecting to others* (F(3) = 3.855, $p = .004$, $\eta_p^2 = .02$), *preventing social bias* (F(3) = 3.937, $p = .004$, $\eta_p^2 = .02$), and *identifying the consequences of actions and options* (F(3) = 5.376, $p = .000$, $\eta_p^2 = .02$) (Table 4). The results of the Levene's tests were not statistically significant (Table 5), therefore Tukey's HSD post hoc test was used in analyzing the multiple comparisons.

Science teachers' self-assessments were found to be statistically significantly the lowest in all three dimensions (Figures 1, 2, and 3). Their ratings in *caring by connecting to others* were lower than language teachers' ($p = .013$) and other subject teachers' ($p = .022$), and a particularly strong difference was noted between EE teachers' self-assessments ($p = .005$) (Figure 1) (see also [15]). The EE teachers' high ratings with respect to the "caring by connecting with others"

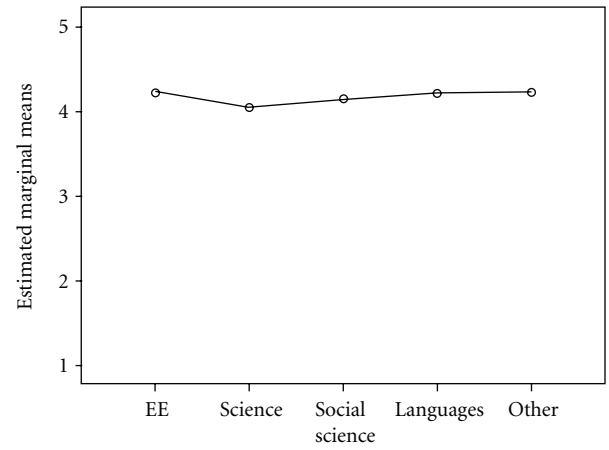

Figure 1: 3 Caring by connecting to others. Estimated Marginal means of 3 caring by connecting to others.

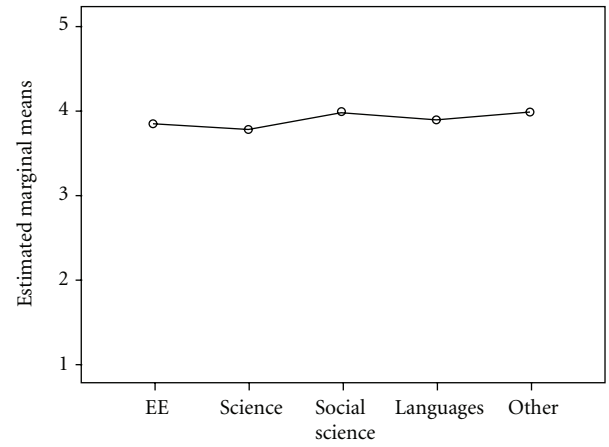

Figure 2: 5 Preventing social bias. Estimated Marginal means of 5 preventing social bias.

dimension were not surprising, since caring has been found to be at the core of class teachers' moral outlook [30].

Regarding the dimension *preventing social bias,* science teachers' self-assessments were lower than social science ($p = .021$) and other subject ($p = .015$) teachers (Figure 2). This phenomenon was similarly noted in a study [2] that examined Finnish student teachers of mathematics and religious education and their reflections on the pedagogical purpose of their teaching. Among other things, the student teachers of religious education emphasized reflection skills: "the teacher needs to be aware of his/her own religious identity in order to help the students find theirs" [2]. In our sample, it seems that social science subjects such as religion education, history, philosophy, and psychology are subjects where teachers' own thinking and affiliations have been reflected and recognized. This is also evident in the ratings of skills in *identifying the consequences of actions and options* (Figure 3), which social science teachers and teachers of other subjects rated equally highly. Social science teachers' ratings were statistically higher than science ($p = .014$),

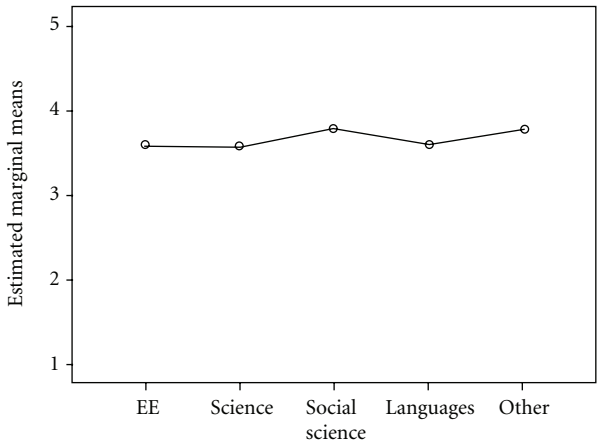

Figure 3: 7 Identifying consequences of actions and options. Estimated Marginal means of 7 identifying the consequences of actions and options.

EE ($p = .014$), and language ($p = .028$) teachers', and teachers of other subjects rated themselves more highly than science ($p = .032$) and EE ($p = .018$) teachers.

All in all, these results are in line with previous studies which have found a low level of ethical sensitivity among university science students [18] and also among high school students in anatomy and physiology classes [19]. A possible explanation may be that in Finland even though it has been very difficult to become a class teacher and to be accepted into social science teaching programs, the situation regarding science and language teachers has been quite the opposite. There have been difficulties finding new mathematics teachers, for example. However, in our study the science teachers' ratings matched the high level of other teachers' ratings, which could be explained by the homogeneity of the participants or the nature of the ESSQ itself [45]. The Finnish science teachers' overall high ratings could also be related to an interesting finding concerning Finnish student teachers of mathematics, who had reflected on the pedagogical purpose of their teaching and stressed the ability to meet the needs of different learners in mathematics [2].

5. Conclusions

The present study investigated the 28-item Ethical Sensitivity Scale Questionnaire (ESSQ) and tested its psychometric properties with a sample of 864 Finnish teachers as well as student teachers at the beginning of their studies (60% and 40%, resp.).

The study found a difference between experienced and novice teachers' self-estimated ethical sensitivity, which is in line with teacher development theories [2, 33, 43, 44] and with Narváez's IEE model's assumptions [13]. Further, the results showed science teaching to be associated with lower evaluations of ethical sensitivity. Therefore both of the hypotheses that were presented on the basis of previous studies were supported. The results with this population confirmed the construct validity, as well as concurrent and convergent validities, of the ESSQ since the results are in line with studies that have utilized other ethical sensitivity instruments. However, based on this study, it is difficult to evaluate the divergent or discriminant validity of the ESSQ, since we were unable to correlate the results with other similar measurements [46]. Therefore the issue of the ESSQ's validity can be seen as a possible weakness of the study; the question needs to be addressed further in future research.

As well, more research is required especially concerning the *reading and expressing emotions* category, of which two of the four items could not be included in our model. This skill in particular has been shown to be important in urban schools with diverse student populations [47]. Skill in understanding and expressing emotions is frequently necessary for teachers in order to establish caring relationships with students and their families [4]. In many critical school situations ethical sensitivity has created opportunities for cooperation. The ESSQ as an instrument therefore needs adjusting and further development, while the items and the number of dimensions require more research and discussion.

The study made clear the Finnish teachers' high level of ethical sensitivity as shown in their self-assessments indicates that the participants, both practicing teachers and students at the beginning of their pedagogical studies, had in their own opinion internalized the professional ethical codes of teaching [3]. In general, caring and equality are the core values and ethos of Finnish educational policy [48], which can be seen in the results. Still, one should be careful when interpreting this finding, since the high means indicate the possibility of a ceiling effect occurring in the ESSQ [18, 31]. Therefore in order to overcome this limitation and thus improve the external validity and the generalization of results [31, page 85], more research is needed to improve the ESSQ so that it makes clearer teachers' and other experts' shortcomings in ethical sensitivity, as well as the possibilities of improving this skill. In any case, self-assessments do not necessarily relate to the nature and level of teachers' ethical sensitivity which is realized through actions in the schools. Therefore the study opens intriguing research prospects. Moreover, it identifies important tensions between research results in this area: more investigation is needed to determine why Finnish teachers' ratings of their own ethical sensitivity are high, yet Finnish schools are still facing challenges regarding pupils' wellbeing [9].

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