Tímarit um uppeldi og menntun / Icelandic Journal of Education | *34*(2), 2025, 1-19
ABIGAIL GROVER SNOOK | UNIVERSITY OF ICELAND
ÁSTA B. SCHRAM | UNIVERSITY OF ICELAND
https://doi.org/10.24270/tuuom.2025.34.7

ASSESSING ICELANDIC UNIVERSITY TEACHERS' MOTIVATIONS, IDENTITY, AND PERCEPTIONS OF CONNECTEDNESS AS A WAY TO INFORM FACULTY DEVELOPMENT INITIATIVES

According to experts, teaching development initiatives should not only be based on needs assessments, but also on teachers' motivations, identity, and connectedness with their colleagues. The aim of this study was to assess Icelandic university teachers' perceptions of their intrinsic, identified regulated, and extrinsic motivation, their identity, and their sense of connectedness/community. Teachers at all seven universities in Iceland (n = 3639) received a survey link and 23.4% responded. Scales that had been previously validated in Icelandic were used to assess concepts. Identified regulated motivation (i.e., values/teaching commitment) and teaching identity were rated highest, followed by intrinsic motivation (i.e., teaching enjoyment), and extrinsic motivation. The degree to which teachers felt connected to their colleagues was rated the lowest. Suggestions are made as to how to strengthen departmental community of practice and increase administrators' awareness of teachers' needs and perceptions of factors that are connected to identity and teacher motivation.

Keywords: motivation, identity, connectedness, communities of practice, faculty development

INTRODUCTION

Faculty development, designed to increase teaching quality, is a critical factor in student learning (Steinert et al., 2016). However, not all faculty members choose to participate in faculty development. Colbert et al. (2008) state that, among other things, coherence between teachers' goals and faculty development is necessary for teachers to engage in improving their teaching through faculty development. Steinert et al. (2016) concluded that a teacher's motivation and values are important to consider when designing faculty

development programmes and that having supportive colleagues contributed to improvements in teaching methods. Forms of acknowledgement and appreciation for good teaching can also be seen as a motivation to pursue faculty development. In addition, having a teacher identity has been associated with better teaching quality (Steinert et al., 2016). Therefore, ways to engage teachers' motivations to teach and to enhance teacher identity appear to be important to the success of faculty development to increase teaching quality. The aim of this study was to assess Icelandic university teachers' perceptions of their intrinsic, identified regulated, and extrinsic motivation, their identity and their calling, and their sense of connectedness/community with other teachers. From these results, the authors will make suggestions to strengthen departmental community of practice, and increase administrators' awareness of teachers' needs and perceptions of factors connected to identity and teacher motivation.

Theoretical framework

With a view to the theoretical framework for this article, theories on engagement, types of motivation, teacher identity, connectedness, and communities of practice were considered. William Kahn was one of the pioneers in researching 'personal engagement' in the workforce, which he claimed arises when a person is able to bring their personal self to their work-role performance (Kahn, 1990). In this situation, workers can express their true selves cognitively, emotionally, and physically through their work (Rich et al., 2010). This is differentiated from work engagement, which is looking at job tasks with a positive state of mind. According to a review of the engagement literature, the most popular work engagement framework utilized in research is the Job Demands-Resources theory (JD-R) framework (Bailey et al., 2015) which looks at both the job-related external resources available to the worker as well as their personal resources, such as self-efficacy, self-esteem, and optimism (Bailey et al., 2015). As can be seen, factors within and outside the person are being considered in this model.

Similar to engagement, there are many theories regarding adults' motivation to learn (Jones, 2009). The motivation to be a more successful teacher is important as it impacts energy, direction, and persistence to completion. Improvements and success in teaching then enhance a teacher's sense of competence (Ryan & Deci, 2000; Sorinola et al., 2017). Similar to engagement theories, motivation theories also consider factors within and outside the person. When self-determination theory (SDT) was introduced, it contrasted with theories that people are motivated by external factors. Proponents of SDT argue that human beings require autonomy, competence, and relatedness to optimize propensity for growth, social development and personal well-being (Ryan & Deci, 2000).

The authors of SDT suggest that various factors within and outside a person have different impacts on what a person does (Ryan & Deci, 2000). Intrinsic motivation is considered the most self-determined and is caused by an internal enjoyment. It has similarities to 'personal engagement' in that the whole heart and true self are engaged in the act. Ryan and Deci (2000) also identify four types of extrinsic motivation, ranked from most internalized to least internalized – integrated regulation, identified regulation, introjected regulation, and external regulation. External regulation uses extrinsic moti-

vators associated with external demands and rewards. In contrast, identified regulated motivation is more internalized and is most associated with personal values, beliefs, and commitments. It is often associated with altruism among educators (Watt et al., 2024). Applying SDT to faculty development, Stupnisky et al. (2018) conducted a study comprising 1671 faculty members across 19 universities. The authors found that autonomy, competence and relatedness predicted intrinsic and identified regulated motivation which, in turn, predicted greater integration of effective teaching strategies.

Similar to motivation, identity is thought to be a critical organizing element, driving thoughts, choices, and energies (Beauchamp & Thomas, 2009). A teacher identity is often associated with how individuals see themselves, present themselves to others, and how emotionally attached they are to the identity (van Lankveld et al., 2021). Five psychological processes were found to be required to develop a teacher identity: (1) a sense of appreciation from students and the institution, (2) a sense of connnectedness to other teachers, (3) a sense of competence as a teacher that is recognized, (4) a sense of commitment to students and future generations of students, and (5) a perceived future trajectory, seen in role models and opportunities for advancement (van Lankveld et al., 2017). In addition, associations have been found between motivational principles and identification with a specific learning domain scale (Jones et al., 2014). Applying the results to faculty development, it could be suggested that faculty members as learners will identify more with teaching if they perceive that what they are learning empowers them, is useful to them, is attainable to them, is interesting to them, and is provided in a caring environment. This identification with teaching scale has been used to measure teacher identity, which was found to be high and also predictive of openness to improve teaching (Snook et al., 2019a). In a similar fashion, having a "calling" to be a teacher would be desirable since it can be defined as having a sense of passion for work, believing that the work is meaningful and purposeful (Dik & Shimizu, 2019), linking it to both engagement and motivation.

Connectedness, or relatedness is seen as important to teacher identity (van Lankveld et al., 2017), to growth as a teacher (Browne et al., 2018; Steinert et al., 2019; Sternszus et al., 2020), and to optimal personal growth and well-being (Ryan & Deci, 2000). Authors of a systematic review also highlighted that over 30% of included studies found that supportive relationships with other colleagues, as a form of community building, contributed to both individual and shared success in improving teaching methods (Steinert et al., 2016). Communities of practice are suggested to foster connectedness as they bring together teachers with common interests on a regular basis to deepen their knowledge and expertise on common practices (Wenger et al., 2002). They can also provide a place for belonging and being cared for, an important part of building a teacher identity (Jones et al., 2014). Li et al. (2009) suggest that communities of practice not only foster the sharing of knowledge and social interaction but also knowledge creation and identity building.

Current study

Experts' opinions expressed in a systematic review emphasized the need to consider teachers' motivations, values and teaching identities, as these may play a role in their approach to teaching development (Steinert et al., 2016). A survey of teachers in the School of Health Sciences at the University of Iceland was performed in 2017 where a survey with scales assessed the health science teachers' motivation, identity, and connectedness (Snook et al., 2019b). However, it was not known whether these same results applied to other teachers at the University of Iceland or to Icelandic university teachers in general. Given the various types of motivation, it would be of interest to assess what teachers perceive as motivators to teach and whether certain types of motivations were perceived as more motivating. It would also be of interest to assess to what extent teachers see their identity as being a teacher, whether they see teaching as a "calling", and how connected teachers feel to their departmental colleagues. Based on the above, the research questions were the following:

1. Do teachers' ratings for different types of motivations vary, and if so, how?
2. To what extent do teachers have a teacher identity?
3. What is the extent of teachers' connectedness to their departmental colleagues?
4. Based on results, what suggestions can be made to faculty development?

Having access to this information could determine the current motivations, values and identities of Icelandic university teachers and establish key strengths and areas for faculty development growth applicable to most teachers.

METHODS

Research design

This was a cross-sectional study, delivered online, of all seven universities in Iceland, using an adaptation of an online survey utilized in a previous research study on health science teachers (Snook et al., 2019b). The Checklist for Reporting of Survey Studies (CROSS) reporting guideline was utilized (Sharma et al., 2021) as it is specifically designed for reporting survey studies and was developed by consensus using the Delphi method.

Participants

The study population included all teachers who taught at the seven universities in Iceland. This included the University of Iceland (UI), Reykjavik University (RU), the University of Akureyri (UNAK), Iceland University of the Arts (IUA), the Agricultural University of Iceland (AUI), Bifröst University (BU), and Hólar University (HU). All teachers that were tenured, tenure-track, and sessional (a.k.a. adjunct, casual, temporary) faculty were eligible. Exclusion criteria included those participants that only answered the demographic portion of the survey. Email addresses were provided by the various universities. Total population sampling was used as the data collected was from those teachers who chose to participate in the survey.

The total population was 3639 teachers of which 850 completed demographic information and some part of the survey (23.4% response rate). Table 1 summarizes the number of teachers invited from each of the universities, how many responded by entering the survey, the response rate and the number of responses used in the analysis. As can be seen, the University of Iceland is the largest university and comprised over 60% of the respondent data. A Wilcoxon signed rank test indicated that there was no difference in the distributions of school participants when comparing the population to the sample z = [2.2], p = [.1378].

Table 1

Sample demographics

School	# of emails	% of total (n=3639)	Answered	Response rate	Usable data	Percentage of the whole sample	Wilcoxon rank test value
IUA	98	2.7%	30	31.0%	30	3.5%	0.1378
AUI	113	3.1%	46	40.7%	45	5.3%	
RU	810	22.3%	142	17.5%	132	15.5%	
UNAK	372	10.2%	74	20.0%	66	7.8%	
BU	116	3.2%	24	21.0%	22	2.6%	
HU	43	1.2%	17	40.0%	17	2.0%	
UI	2087	57.4%	555	27.0%	529	62.2%	
Other					9	1.1%	
Total	3639		888		850	100.0%	

IUA - Iceland University of the Arts, AUI - the Agricultural University of Iceland, RU - Reykjavik University, UNAK - the University of Akureyri, BU - Bifröst University, HU - Hólar University, UI - University of Iceland, Z score = 2.2

Fifty-seven percent of participants identified as female while 41% identified as male. Nineteen percent were under 40 years of age, 28% were between 40 and 49, 29% were between 50 and 59, and 22% were 60 or over. Over 38% had worked for more than 10 years for their university while 17% had worked less than 2 years. The sample was 50% tenure or tenure-track faculty and 50% were sessional (casual/adjunct) teachers and half of these sessionals (casual/adjunct) teachers taught face-to-face. As the gender, age, years taught at university, and position distribution were not known in the population, it was not possible to determine whether the sample was representative of the population with respect to the above attributes, although the sample did seem to demonstrate a wide distribution across these demographic characteristics.

Survey development

We utilized an original survey, previously developed in English and Icelandic in 2017 after an extensive review of the literature on perceived needs of teachers. Both authors of the original survey are bilingual with English being the native language for one author and Icelandic being the native language for the other author. Both authors also had experience translating and adapting surveys. As part of the original 2017 study, the survey had been pilot-tested and reviewed by an expert committee before being administered to Health Science School teachers at the University of Iceland in 2017 as part of a doctoral thesis (Snook, 2020). The 96-item questionnaire included items and scales that assessed various aspects of teaching, including identification with teaching, types of motivations and values, use of motivational principles, what motivates teachers to try a new teaching method, current teaching methods, perceived needs, use and perceived value of faculty development, and preferred learning formats. The parts of the questionnaire analyzed for the current study were the teachers' motivation to teach or improve their teaching, teacher identity and calling, and perceived connectedness with department and colleagues. The original survey included three previously validated scales used repeatedly in research - two scales (intrinsic motivation and identified regulated motivation) based on SDT (Dybowski & Harendza, 2015) and one built on identification with teaching (Jones et al., 2014). Two additional scales for connectedness and forms of appreciation as extrinsic motivators were identified in the doctoral thesis and shown to be valid and reliable. [For further details on the original survey development, please refer to Snook (2020)]. Below is the name of each scale with the number of items on the survey that assessed the concept, followed by the reported Cronbach's alpha in the previous study (Snook et al., 2019b) and from the current study, separated by a comma in brackets, as well as definitions/information about the concept/scale.

- IM - intrinsic motivation – four items, [.86, .83] – "an incentive to engage in a specific activity that derives from pleasure in the activity itself (e.g., a genuine interest in a subject studied) rather than because of any external benefits that might be obtained (e.g., money, course credits)" (American Psychological Association, 2025) – considered the most desired form of motivation (Van den Broeck et al., 2021). This validated scale originally appeared in Dybowski & Harendza (2015).
- IR - identified regulation motivation (i.e., "I teach because" statements) – three items, [.80, .74] – considered to be an altruistic motivation based on personal importance and conscious valuing and part of self-determination theory (Ryan & Deci, 2000). This validated scale originally appeared in Dybowski & Harendza (2015).
- EM – external motivators to try a new teaching method – four items, [.76. .67] – used as an extrinsic motivation where the teacher's university, other teachers in their department, or the teachers' students indicate an appreciation of the teacher's efforts to try a new teaching method. This was a new scale from Snook et al. (2019b) based on prior research and a literature review.
- ID - identification with teaching (i.e., teacher identity) – four items, [.80, .79] – the extent to which teachers define themselves through a role or performance in activities related to teaching or the degree to which a teacher values teaching as an

important part of his or her "self" (Jones et al., 2014). This validated scale originally appeared in Jones et al. (2014).

- CO - connectedness – three items, [.78, .78] – "Teachers sharing experiences with colleagues with similar experiences created a sense of mutual trust and enhanced confidence; this also validated one's identity as a teacher." (van Lankveld et al., 2017). This was a new scale from Snook et al. (2019b) based on prior research and a literature review.

One item, not included in any of the above scales, asked whether the teachers felt they had a "calling" to be a teacher. There were also other items under the prompt, "I would be willing to try a new teaching method if…". All statements were evaluated using a 6-point Likert scale (strongly disagree, disagree, somewhat disagree, somewhat agree, agree, strongly agree). There was also an option, "I choose not to answer".

As mentioned, the Icelandic questionnaire developed in 2017 had been pilot tested prior to its initial use in the previous study (Snook et al., 2019b). For the current study, the adaptation for use with all teachers required no changes in wording for the scales used. Therefore, no pilot-testing of the current questionnaire was indicated, especially because the reliability of the scales used in analysis had been established (Snook et al., 2019b). The questionnaire was available in either English or Icelandic, depending on the participant's choice of language. The entire questionnaire, either in English or Icelandic, is available upon request.

Survey administration and statistical analysis

The invitations to participate were sent out through SurveyMonkey and were followed up with three reminders over a month's time. The survey was administered to the UI during the fall of 2022 and to the other universities in the fall of 2023. The universities were encouraged to send an email to their teachers, endorsing the survey and encouraging participation. There was little or no concern that teachers would participate in the survey more than once as SurveyMonkey allowed only one submission per URL. In addition, the link to the survey was only available through the teacher's email, reminders were only sent to teachers who had not submitted the survey, and the survey was on the longer side, taking 15-20 minutes to complete.

Statistical analysis was conducted with SAS 9.4. Descriptive statistics reporting frequencies and percentages were determined for all individual items being evaluated. In addition, a weighting system (1-strongly disagree, 2-disagree, 3-somewhat disagree, 4-somewhat agree, 5-agree, 6-strongly agree, no weight if "I choose not to answer") was used to determine means, standard deviations and confidence intervals for both individual items and for the scales. Items were not weighted if the participant did not answer that question. Scale means were determined by adding the scores on the items and then dividing by the number of items in the scale. If one (or more) item(s) of a scale was (were) not answered, the mean for the scale was not calculated and was not included in the analysis. For the scales, means, standard deviations, and confidence intervals were calculated, and Cronbach's alphas were determined to test reliability. If there appeared

to be large differences in means within a scale, the items were tested for significance with paired t-tests. Finally, correlations were examined looking at which items correlated most with the separate item, "I have a calling to be a teacher".

Ethical considerations

This study was approved by the Research Ethics Committee for Public Higher Education Institutions, request SHV2023-073. Teachers were informed that participation indicated informed consent. The authors followed all international guidelines to preserve anonymity. The authors (AGS and ABS) were the only ones with access to the data and the data was kept in a protected, locked computer at all times.

RESULTS

Comparing scales

First, using the weighted averages for the scales, the results of the five scales can be compared. Table 2 shows the mean, standard deviations, and confidence intervals for all five scales, as well as the t values for the paired t-tests. Of the three scales assessing types of motivation, identified regulation (IR) or the "I teach because…." scale was found to be consistently the highest. It had a similar mean to the identity scale (ID). The second highest motivation scale was the intrinsic motivation (IM) scale and the lowest motivation scale was the extrinsic motivation scale (EM). The lowest scale average for all the scales was for the connectedness scale (CO). All t-values were significant at the $p < .0001$ value except the identified regulated motivation – identity comparison labeled "NS" on Table 2. This would indicate that identified regulated motivation and identity were of similar value but were significantly higher than all other scales. Intrinsic motivation was the next highest rated and significantly higher than the next highest scale - extrinsic motivation. Finally, the connectedness scale had the lowest rating and was significantly lower than all other scales

Table 2

Means, standard deviations, confidence intervals for scales along with t values for scale comparisons. All t values with numbers were significant at p <.0001.

		t values			
	Mean (SD, 95% CI)	IM	IR	EM	ID
Intrinsic motivation (IM)	5.1 (0.7, 5.0-5.1)	*			
Identified regulated (IR)	5.4 (0.6, 5.4-5.5)	11.74	*		
Extrinsic (EM)	4.4 (0.9, 4.3-4.5)	14.99	26.06	*	
Teacher identity (ID)	5.5 (0.6, 5.4-5.5)	17.34	NS	28.04	*
Connectedness (CO)	3.9 (1.2, 3.8-4.0)	25.23	31.96	8.26	34.34

SD - standard deviation, CI - confidence interval, * - compared to itself, NS - not significant

Measures of motivation

Looking first at items measuring intrinsic motivation, the highest rated item was "I enjoy my teaching most of the time" with 47% indicating strong agreement and an additional 40% indicating agreement. The lowest rated statement was whether they looked forward to teaching most of the time with 26% strong agreement and 39% agreement. Using the weights, the top third of Table 3 shows the means, standard deviations, confidence intervals, number of participants, and interpretation for the four intrinsic motivation statements (IM1-IM4) as well as the four statements as a scale. Overall, teachers appeared to be intrinsically motivated to teach with average responses between "agree" and "strongly agree". Using paired t-tests, the enjoyment they experience while teaching and their perception of how it enriches their job were both significantly higher than whether they looked forward to teaching, $t(812) = 19.74$, $p = <.0001$, $t(800) = 3.86$, $p = .0001$, respectively.

Table 3

Weighted intrinsic, identified regulation, and extrinsic motivation items and scales

	Mean	SD	95% CI	n	Interpret
IM1 - During teaching I am completely in my element.	5.0	1.0	4.9 - 5.1	815	Agree
IM2 - I look forward to my next teaching most of the time.	4.8	1.0	4.7 - 4.9	816	Agree
IM3 - I enjoy my teaching most of the time.	5.3	0.8	5.3 - 5.4	822	Agree to strongly agree
IM4 - Teaching enriches my job.	5.2	0.8	5.2 - 5.3	806	Agree
IM scale - intrinsic motivation scale	5.1	0.7	5.0 - 5.1	778	Agree
IR1 - I teach because I find the contents of my lessons important.	5.5	0.7	5.4 - 5.5	794	Agree to strongly agree
IR2 - I teach because I am convinced that it is my duty as a specialist to pass on my knowledge.	5.4	0.8	5.3 - 5.4	787	Agree to strongly agree
IR3 - I teach because it is important for me to make my contribution to students becoming good practitioners in the future who will be in a similar field.	5.5	0.8	5.4 - 5.5	785	Agree to strongly agree
IR scale – identified regulation	5.4	0.6	5.4 - 5.5	771	Agree to strongly agree
I would be motivated to try a new teaching method…					
EM1 - …if I was financially rewarded for attending courses and workshops on enhancing my teaching.	4.4	1.5	4.2 - 4.5	692	Somewhat to agree
EM2 = …if I received feedback from other teachers or my supervisors on my teaching.	4.3	1.3	4.2 - 4.4	693	Somewhat to agree
EM3 - …if I was shown appreciation for enhancing my teaching methods.	5.0	1.0	4.9 - 5.0	705	Agree
EM4 - …if it improved my ratings on student evaluations.	4.1	1.4	4.0 - 4.2	665	Somewhat to agree
EM scale – extrinsic motivation	4.4	0.9	4.3 - 4.5	613	Somewhat to agree

SD – standard deviation; CI – confidence interval; n – sample size; Interpret - interpretation;IM – intrinsic motivations; IR – identified regulation; EM – extrinsic motivation; 1 – strongly disagree; 2 – disagree; 3 – somewhat disagree; 4 – somewhat agree; 5 – agree; 6 – strongly agree

The identified regulation scale, or "I teach because…." statements, was the highest rated of the motivation scales (Table 2) and is associated with altruistic behaviors. All three statements had similar ratings with mostly strong agreement (53-59%) or agreement (29-35%). The middle section of Table 3 provides the means, standard deviations, 95% confidence intervals, number of participants, and the interpretation using weights for the items (IR1-IR3) and the identified regulation scale. All were between "agree" and "strongly agree". The results support the notions that faculty are motivated by their course content, a sense of duty, and a desire to contribute to the next generation. No differences between items were seen with paired t-tests.

A third type of motivation suggested in the literature is extrinsic motivation. To measure this, a scale with the prompt, "I would be motivated to try a new teaching method…" was used. All statements focused on a type of external motivator (financial compensation, peer feedback, forms of appreciation, student evaluations). "Being shown appreciation for enhancing my teaching methods" was the highest rated strategy, with 74% of teachers strongly agreeing or agreeing while improvements on student evaluations was the lowest rated strategy, with 42% agreeing or strongly agreeing. The lower section of Table 3 shows the weighted averages and additional information for the items (EM1-EM4) and the extrinsic motivation scale. Student evaluations seem to be only "somewhat motivating" for teachers and were significantly lower than "being shown appreciation", $t(664) = 9.69$, $p = <.0001$. There was much more variability in the answers for this scale as seen by the larger standard deviations.

Although not part of the extrinsic motivation scale, the highest-rated motivations to try a new teaching method asked about on the survey were focused on students:

1) "if I knew it benefited my students" – mean 5.3, standard deviation 0.8, 723 participants, and a 95% confidence interval of 5.3-5.4
2) "if it would increase my students' engagement in their learning" – mean 5.2, standard deviation 0.8, 709 participants, and a 95% confidence interval of 5.2-5.3

Measures of identity

The ranges of the items in the teacher identity scale were 57-72% for strong agreement and 24 – 33% for agreement. The one exception was the statement that "being good at teaching is an important part of who I am" with 42% strong agreement and 37% agreement. The top half of Table 4 shows the results for the weighted items (ID1-ID4) and for the teacher identity scale, all between "agree" and "strongly agree". Teachers saw the personal value of being successful at teaching as observed in the higher value for the first item, but were significantly less inclined to state that being good at teaching was "an important part of who I am" ($t(797) = 16.15$, $p = <.0001$), although the average was still "agree".

Table 4

Weighted identity and connectedness items and scales

	Mean	SD	95% CI	n	Interpret
ID1 - Success in my teaching is very valuable to me.	5.7	0.6	5.6 - 5.7	826	Agree to strong
ID2 - It matters to me how well I do in my teaching.	5.6	0.7	5.5 - 5.6	823	Agree to strong
ID3 - Being good at teaching is an important part of who I am.	5.2	0.9	5.1 - 5.2	806	Agree
ID4 - Doing well as a teacher is very important to me.	5.5	0.7	5.4 - 5.5	810	Agree to strong
ID scale - identity scale	5.5	0.6	5.4 - 5.5	791	Agree to strong
CO1 - I feel a strong connection to my departmental colleagues.	4.0	1.5	3.9 - 4.1	801	Somewhat agree
CO2 - Members of my department frequently share teaching practices they have found to be successful.	3.6	1.5	3.5 - 3.7	783	Somewhat disagree to Somewhat agree
CO3 - I have specific departmental colleagues whom I would look to for help if I wanted to improve my teaching methods.	4.0	1.4	3.9 - 4.1	779	Somewhat agree
CO – Connectedness scale	3.9	1.2	3.8 - 4.0	733	Somewhat agree

SD – standard deviation; CI – confidence interval; n – sample size; Interpret - interpretation;ID – Identitify; CO – connectedness; 1 – strongly disagree; 2 – disagree; 3 – somewhat disagree; 4 – somewhat agree; 5 – agree; 6 – strongly agree

Another measure related to identity and closely linked to intrinsic and identified regulated motivation is the idea of a "calling" to be a teacher. Fifty-three percent of teachers rated the statement, "I have a calling to be a teacher" as strongly agree or agree. The weighted mean was 4.5 with a standard deviation of 1.2, and a 95% confidence limit of 4.4 – 4.6 with 767 participants answering. This mean is lower than all items used to measure intrinsic motivation, identified regulated motivation, and identity, all of which had means over 4.8.

In addition, the highest correlations with the "calling" statement were the first three intrinsic motivation statements [r(755-762) = 0.49, all $p < 0.001$], the fourth intrinsic

motivation statement, "teaching enriches my job" [$r(759) = 0.57$, $p < .001$] and the identity statement, "being good at teaching is an important part of who I am" [$r(763) = 0.55$, $p < .001$]. All of these would be considered moderate correlations. The highest correlation [$r(740) = 0.62$, $p < .001$)] was between the "calling statement" and the intrinsic motivation scale, which was a moderate to strong correlation with 38% of the variance in the "calling" statement being explained by the intrinsic motivation scale.

Measures of connectedness

Finally, the items from the connectedness scale were considered. When looking at the percentage of teachers that agreed and strongly agreed, all items were 41% or lower with "members of my department share teaching practices" the lowest at 30%. The lower section of Table 4 shows the weighted distribution for the connectedness items (CO1-CO3) and scale. Faculty members sharing teaching practices was rated significantly lower when compared to the statement about feeling connected to their department ($t(763) = 7.67$, $p = <.0001$). It should also be noted that the standard deviations for these items were larger than the items in the scales for intrinsic motivation, identified regulated motivation and identity, indicating more variability in the answers.

DISCUSSION

This study examined the motivations, values, identity and connectedness of university teachers in Iceland. These concepts are not often the basis of research studies (Steinert et al., 2016). The results of the scales and items can be examined to make overall conclusions about all university teachers in Iceland and also to identify areas where faculty development efforts could be focused.

First to be examined are the scores of the scales as a whole. It is clear that teachers are highly motivated, based on the high average scores for each scale. When compared to the 2017 study on health science teachers at UI (Snook et al., 2019b), all values from the 2017 study were within the confidence intervals of the current study. These results suggest some consistency of scores across time and across types of teachers, as the 2017 study focused on health science teachers at UI whereas the current study included teachers from all disciplines offered at multiple universities. Considering the motivation scales, it was encouraging to see that teachers across all universities appeared to be motivated by all types of motivation. This study's results were similar to conclusions seen among Australian medical educators where the same scales for measuring intrinsic and identified regulated motivation were used (Watt et al., 2024). The authors also found that altruistic behaviors (identified regulated motivation) were the most motivating to educators.

Identified regulation is characterized by a "conscious valuing of a behavior or regulation, such that the action is accepted or owned as personally important" (Ryan & Deci, 2000, p. 72). Authors of a meta-analysis concluded that identified regulation was more powerful in predicting employee work performance than intrinsic motivation (Van den Broeck et al., 2021). Van den Broeck et al. (2021) suggested that being motivated because one's work corresponds with one's values or goals may be more important for continuous

effort, goal-directed behavior, and "going the extra mile" than work that is enjoyable. Looking at the items making up the identified regulation scale (i.e., because my content is important, I need to pass on what I know, I need to contribute to future generations in my field – Table 3), these statements relate to a sense of commitment to the content being taught, the profession, and to students. van Lankveld et al. (2017) identified a sense of commitment as a psychological process important to the development of a teacher identity. Perhaps not surprisingly, the score for the teacher identity scale, discussed later, was also similarly high in the current study. Furthermore, comparably high scores were seen when teachers stated they would be willing to try a new teaching method if they knew that it would benefit or engage their students. Faculty development could possibly capitalize on this strong altruistic motivation by celebrating and encouraging this commitment to the profession, the students, and future generations, while providing evidence of how learner-focused teaching methods engage and benefit students.

The second highest average motivation scale was the intrinsic motivation scale (Table 3). Intrinsically motivated teachers teach for the satisfaction of the teaching itself and intrinsic motivation is associated with words such as inherent "enjoyment" and "interest" (Ryan and Deci, 2000). The authors of a meta-analysis found that intrinsic motivation was most important for employee well-being, attitudes and behavior (Van den Broeck et al., 2021). Interestingly, within the reported values for the intrinsic motivation scale, the statements regarding enjoyment and enrichment of teaching were significantly higher than the one that dealt with looking forward to teaching. One might speculate that this difference may be caused by teachers' initial lack of teaching confidence, therefore reducing how much they look forward to teaching. However, when they actually teach, they realize that they enjoy themselves and gain confidence. Faculty development could address this fundamental need for a sense of competence for growth and well-being, and for the development of a teacher identity (Ryan & Deci, 2000; van Lankveld et al. 2017) by offering pedagogy courses that improve the needed skills and, subsequently, increase teachers' confidence in their teaching ability. Another idea would be to provide opportunities to "try out teaching" for prospective teachers so that they could see how enjoyable it is. The results of this study suggest that faculty development should highlight the enjoyment of teaching and also address issues of teaching competence and confidence, which may improve the intrinsic motivation of teachers.

The lowest-rated form of motivation, with "somewhat agree" to "agree" interpretation, was the external motivation scale (Table 3). It asked whether financial compensation, being shown appreciation, improved student evaluations, and feedback from peers would motivate the teacher to try a new teaching method. The low rating of feedback from peers was a bit surprising as mentorship and communities of practice are strongly recommended in the professional development of a teacher (Browne et al., 2018; Steinert et al., 2019; Sternszus et al., 2020). Communities of practice and mentors were found to address all important factors with respect to motivation and identity in a review of the literature (Snook & Schram, 2024). Perhaps faculty development needs to educate teachers on the value of mentorship and communities of practice. Being shown appreciation for trying a new teaching method was rated significantly higher than other incentives, indicating that this would motivate teachers to develop their teaching. This might reflect the general consensus that positive feedback for teaching development is lacking, and

improving teaching is undervalued in research-focused universities. Efforts to reward good teaching through acknowledgement are important considerations for these universities (Stein et al., 2024). Furthermore, teachers do not seem to be motivated by improved course evaluations completed by students. This could partly be due to teachers' lack of belief in the validity and usefulness of these evaluations. For some years, there has been a debate at the University of Iceland of the value of the current evaluation (Schram, personal communication, July 2024). Increased effort should be put into designing student evaluations in which both students and teachers have faith. Possible increased student and teacher participation in the design and administration of course evaluations would improve the situation.

As mentioned previously, the participants appeared to have a strong teacher identity. Three of the items (Table 4) relate to excelling in teaching performance ("doing well", "success at teaching"). These items may relate to the need for competence mentioned in both SDT and in teacher identity theory (Ryan & Deci, 2000; van Lankveld et al., 2017). Interestingly, one statement, "being good at teaching is an important part of who I am", was significantly lower than the three other statements. In addition, the single item, "I have a calling to be a teacher" was rated even lower. It could be argued that these kinds of words ("part of who I am", "calling") are stronger, more personal statements, when compared to teaching performance statements. Not surprisingly, there was a moderate to strong correlation between having a "calling" and the intrinsic motivation scale. Interestingly, the strongest "calling" item correlations were with the "teaching enriches my job" from the IM scale and "being good at teaching is part of who I am" from the ID scale. This suggests that the teacher who has a "calling" may see teaching as both a part of self and enriching to self. One suggestion to faculty development would be to encourage faculty reflection on the impact of teaching on their own self-growth and also to foster activities that focus teachers on the benefits of being a teacher.

The lowest-rated scale on the survey was the scale measuring a teacher's connectedness to other faculty and to their department, especially in the area of sharing teaching strategies among faculty members (Table 4). As connectedness is seen as important to teacher identity (van Lankveld et al., 2017), to the growth of a teacher (Browne et al., 2018; Steinert et al., 2019; Sternszus et al., 2020), and to optimal personal growth and well-being in SDT (Ryan & Deci, 2000), it seems that this is an area that could be developed more among the universities of Iceland. Improving connectedness among teachers could be seen as a "job-related resource" discussed in engagement theory, especially in the area of teachers sharing teaching strategies with their fellow teachers and enhancing a sense of belonging and care (Wenger et al., 2002; Li et al., 2009). In fact, communities of practice and mentors could address many of the suggestions mentioned here for faculty development: highlighting common values (identified regulation), sharing evidence teaching and how it benefits them, increasing teacher confidence through skill acquisition, encouraging individual and community reflection on teaching and its benefits, and possibly increasing acknowledgement of quality teaching through advocating for it among the university administration.

Strengths and limitations

The administration of this survey across all of the universities in Iceland was considered a strength as this kind of survey has never been administered before. It led to valuable insights that could be applied to teachers across disciplines and across universities. It was also considered a strength that the survey focused on the motivations, values, identity and connectedness of these teachers, as suggested in the literature (Steinert et al., 2016). Based on this information, suggestions were made that could benefit many teachers in Iceland. The primary limitation was the low response rate, although it was not unlike the response rate seen among sessional teachers in the 2017 survey (Snook et al., 2019b). As mentioned, the sample was representative of the school distribution, but it could not be determined whether it was representative with respect to other demographic indicators. The Cronbach's alphas for the scales used in the current study were similar or slightly lower than in the 2017 study. The lower alphas may be due to the more heterogenous population of all types of teachers in the current study versus only health science teachers in the 2017 study. However, all alpha values were considered of good or acceptable reliability (Akoglu, 2018). Another limitation is the well-known bias that surveys are known for; that is, those interested in teaching would be more likely to answer the survey.

CONCLUSIONS

The results from this study may inform faculty development as to how to engage university teachers and enhance their motivations. Faculty development that appeals to a teacher's goals and values and also demonstrates its merit to the students/profession may be especially effective in engaging teachers and leading to improved teaching performance. Faculty development should also celebrate and encourage teacher commitment to student learning to foster intrinsic motivation. Faculty development should encourage personal reflection on the benefits and enjoyment of teaching and even encourage discussion groups to bring this enjoyment to the forefront. In addition, faculty development should attend to teachers' needs for competence in teaching by providing pedagogical training and asking what skills the teachers need to improve their confidence in their teaching. Universities need to continue to work on ways to celebrate and show appreciation for good teaching so that lack of recognition does not take away from the enjoyment of teaching and discourage engagement. Furthermore, universities should invest energy in developing student evaluations that give students a voice and provide constructive feedback to teachers. Finally, universities should invest more in ways of educating teachers on the value of mentorship and developing communities of practice within departments. These communities could address many of the suggestions mentioned above and help engage teachers as a job-related resource. Relating this information back to the theoretical concepts discussed, it is clear that issues such as competence and connectedness (SDT and teacher identity theories), appreciation and commitment (teacher identity theory) are being addressed and linked to engagement, motivation, and identity. Assessing the motivations, values, identity and connectedness of teachers in this study led to the identification of strengths and areas where growth was needed.

REFERENCES

Akoglu, H. (2018). User's guide to correlation coefficients. *Turkish Journal of Emergency Medicine*, *18*(3), 91–93. https://doi.org/10.1016/j.tjem.2018.08.001

American Psychological Association. (2025). *APA Dictionary of Psychology*. https://dictionary.apa.org/

Bailey, C., Madden, A., & Alfes, K. (2015). What is engagement? In *Evaluating the evidence on employee engagement and its potential benefits to NHS staff: A narrative synthesis of the literature*. *Health services and delivery research, no. 3.26.* https://www.ncbi.nlm.nih.gov/books/NBK299343/

Beauchamp, C., & Thomas, L. (2009). Understanding teacher identity: An overview of issues in the literature and implications for teacher education. *Cambridge Journal of Education*, *39*(2), 175–189. https://doi.org/10.1080/03057640902902252

Browne, J., Webb, K., & Bullock, A. (2018). Making the leap to medical education: A qualitative study of medical educators' experiences. *Medical Education*, *52*(2), 216–226. https://doi.org/10.1111/medu.13470

Colbert, J. A., Brown, R. S., Choi, S., & Thomas, S. P. (2008). An investigation of the impacts of teacher-driven professional development on pedagogy and student learning. *Teacher Education Quarterly*, *35*(2), 135–154. https://eric.ed.gov/?id=EJ817315

Dik, B. J., & Shimizu, A. B. (2019). Multiple meanings of calling: Next steps for studying an evolving construct. *Journal of Career Assessment*, 27(2), 323-336. https://doi.org/10.1177/1069072717748676

Dybowski, C., & Harendza, S. (2015). Validation of the Physician Teaching motivation Questionnaire (PTMQ). *BMC Medical Education*, *15*(1), 166. https://doi.org/10.1186/s12909-015-0448-5

Jones, B. D. (2009). Motivating students to engage in learning: The MUSIC model of academic motivation. *Internationl Journal of Teaching and Learning in Higher Education*, *21*(2), 272–285. https://eric.ed.gov/?id=EJ899315

Jones, B. D., Osborne, J. W., Paretti, M., & Matusovich, H. (2014). Relationships among students' perceptions of a first-year engineering design course and their engineering identification, motivational beliefs, course effort, and academic outcomes. *International Journal of English Education*, *30*(6(A)), 1340–1356. https://www.researchgate.net/publication/286660738_Relationships_among_Students'_Perceptions_of_a_First-Year_Engineering_Design_Course_and_their_Engineering_Identification_Motivational_Beliefs_Course_Effort_and_Academic_Outcomes

Kahn, W. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, *33*, 692–724. https://www.jstor.org/stable/256287

Li, L. C., Grimshaw, J. M., Nielsen, C., Judd, M., Coyte, P. C., & Graham, I. D. (2009). Use of communities of practice in business and health care sectors: A systematic review. *Implementation Science*, *4*, 27. https://doi.org/10.1186/1748-5908-4-27

Rich, B. L., Lepine, J. A., & Crawford, E. R. (2010). Job engagement: Antecedents and effects on job performance. *Academy of Management Journal*, *53*(3), 617–635. https://doi.org/10.5465/AMJ.2010.51468988

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, *55*(1), 68–78. https://doi.org/10.1037//0003-066x.55.1.68

Sharma, A., Minh Duc, N. T., Luu Lam Thang, T., Nam, N. H., Ng, S. J., Abbas, K. S., Huy, N. T., Marušić, A., Paul, C. L., Kwok, J., Karbwang, J., de Waure, C., Drummond, F. J., Kizawa, Y., Taal, E., Vermeulen, J., Lee, G. H. M., Gyedu, A., To, K. G., . . . Karamouzian, M. (2021). A Consensus-based checklist for reporting of survey studies (CROSS). *Journal of General Internal Medicine*, *36*(10), 3179–3187. https://doi.org/10.1007/s11606-021-06737-1

Snook, A. G. (2020). *Exploring the needs, motivations, and identity of health science educators – A basis for improved support for university teachers* [doctoral dissertation, University of Iceland]. Opin vísindi. https://hdl.handle.net/20.500.11815/1815

Snook, A. G. & Schram, A. B. (2024, April 12). *Motivating the growth of a complementary professional identity* [Symposium on motivation and identity]. American Educational Research Association, Philadelphia, PA, United States.

Snook, A. G., Schram, A. B., Jones, B. D., & Sveinsson, T. (2019a). Factors predicting identity as educators and openness to improve: An exploratory study. *Medical Education*, *53*(8), 788–798. https://doi.org/10.1111/medu.13909

Snook, A. G., Schram, A. B., Sveinsson, T., & Jones, B. D. (2019b). Needs, motivations, and identification with teaching: A comparative study of temporary part-time and tenure-track health science faculty in Iceland. *BMC Medical Education*, *19*(1), 349. https://doi.org/10.1186/s12909-019-1779-4

Sorinola, O., Thistlethwaite, J., Davies, D., & Peile, E. (2017). Realist evaluation of faculty development for medical educators: What works for whom and why in the long-term. *Medical Teacher*, *39*(4), 422–429. https://doi.org/10.1080/0142159X.2017.1293238

Stein, C. J., Luff, D., Gold, J. M., Schwartzstein, R. M., & Kesselheim, J. C. (2024). A volunteer passion: A qualitative look at how we measure and reward the work of medical educators. *Cureus*, *16*(7), e65849. https://doi.org/10.7759/cureus.65849

Steinert, Y., Mann, K., Anderson, B., Barnett, B. M., Centeno, A., Naismith, L., Prideaux, D., Spencer, J., Tullo, E., Viggiano, T., Ward, H., & Dolmans, D. (2016). A systematic review of faculty development initiatives designed to enhance teaching effectiveness: A 10-year update: BEME Guide No. 40. *Medical Teacher*, *38*(8), 769–786. https://doi.org/10.1080/0142159x.2016.1181851

Steinert, Y., O'Sullivan, P. S., & Irby, D. M. (2019). Strengthening teachers' professional identities through faculty development. *Academic Medicine*, *94*(7), 963–968. https://doi.org/10.1097/acm.0000000000002695

Sternszus, R., Boudreau, J. D., Cruess, R. L., Cruess, S. R., Macdonald, M. E., & Steinert, Y. (2020). Clinical teachers' perceptions of their role in professional identity formation. *Academic Medicine*, *95*(10), 1594–1599. https://doi.org/10.1097/acm.0000000000003369

Stupnisky, R. H., BrckaLorenz, A., Yuhas, B., & Guay, F. (2018). Faculty members' motivation for teaching and best practices: Testing a model based on self-determination theory across institution types. *Contemporary Educational Psychology*, *53*, 15–26. https://doi.org/10.1016/j.cedpsych.2018.01.004

Van den Broeck, A., Howard, J. L., Van Vaerenbergh, Y., Leroy, H., & Gagné, M. (2021). Beyond intrinsic and extrinsic motivation: A meta-analysis on self-determination theory's multidimensional conceptualization of work motivation. *Organizational Psychology Review*, *11*(3), 240–273. https://doi.org/10.1177/20413866211006173

van Lankveld, T., Schoonenboom, J., Volman, M., Croiset, G., & Beishuizen, J. (2017). Developing a teacher identity in the university context: A systematic review of the literature. *Higher Education Research and Development*, *36*(2), 325–342. https://doi.org/10.1080/07294360.2016.1208154

van Lankveld, T., Thampy, H., Cantillon, P., Horsburgh, J., & Kluijtmans, M. (2021). Supporting a teacher identity in health professions education: AMEE Guide No. 132. *Medical Teacher*, *43*(2), 124–136. https://doi.org/10.1080/0142159x.2020.1838463

Watt, N. A., Backhouse, S., Ansari, S., Dwyer, K. M., McLeod, J., Phelps, G., Leach, D., & Armitage, J. A. (2024). Understanding barriers, enablers and motivational factors for Australian healthcare educators teaching university students on clinical placement using the validated Physician teaching motivation questionnaire. *BMC Medical Education*, *24*(1), 900. https://doi.org/10.1186/s12909-024-05886-1

Wenger, E., McDermott, R., & Snyder W. M. (2002). *Cultivating communities of practice*. Harvard Business School Press.

The article was received 17th of July 2024 and was accepted 13th of February 2025.

ABOUT THE AUTHORS

Abigail Snook, abigail@hi.is, received her Ph.D. in 2020 from the University of Iceland and her M.Ed. from Post University in 2015. She has been employed by the University of Iceland as an adjunct faculty member since 2020 where her interests are patient education and teaching methods. https://orcid.org/0000-0001-9417-720X

Ásta B. Schram, PhD, astabryndis@hi.is is an associate professor and Director for Educational Development at the School of Health Sciences at the University of Iceland. Her research focus is mainly on motivation, teaching methods, identity, and self-regulation. Ásta conducts and organizes pedagogical workshops, discussion hours, courses and conferences for teachers. In addition, she serves on several organizational committees. Ásta graduated with her PhD in educational psychology from Virginia Tech, USA. https://orcid.org/0000-0003-2980-1605