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What organizational factors motivate environmental educators to perform their best?

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ABSTRACT

Positive motivation to perform work tasks has been associated with better performance and outcomes in both the organizational and informal education literature. In environmental education (EE), this means that more motivated instructors are likely to provide better programs for their participants. In this exploratory study across 15 states in the USA, grounded in interviews with EE instructors and their supervisors, we examine the most salient factors motivating EE instructors to perform their work and how the practices of their organizations influenced those factors. Organizational practices related to enhancing EE instructors' feelings of autonomy, competence, relatedness, and meaningfulness of their work each contributed to positive motivations. A strong sense of shared values and interests underpinned each of these factors. We discuss recommendations for maintaining and enhancing instructor motivations, including hiring and onboarding strategies, participatory evaluation processes, and professional development opportunities. We also consider subtle differences in motivations at different career stages.

Introduction

A diverse array of organizations provide environmental education (EE) programs across the United States, ranging from large federal agencies to small local nonprofit organizations. Each has its own mission, organizational structure, culture and practices. While evaluation research has demonstrated that positive student outcomes can be achieved across a wide variety of program types (Ardoin et al., 2018; Stern et al., 2014), we know of no study that specifically explores how organizational practices might influence EE instructors' workplace motivations. Prior research, however, demonstrates that the motivations of educators can influence the quality of their teaching, as well as participant outcomes. For example, Stern and Powell (2013) demonstrated that interpreters at national parks who felt more motivated immediately before a program produced more positive participant outcomes. Moreover, decades of organizational research confirm that motivation strongly influences the performance of employees in varying work environments (e.g., Lawler, 1973; Porter et al., 2003; Vroom, 1964) and that numerous organizational practices and policies can influence motivation (Herzberg, 1966). To explore how these concepts might apply to EE organizations, we examined the influences of organizational practices on EE instructors' motivations to perform their work – specifically, to teach EE programs.

The practical aim of this exploratory study is to uncover organizational practices that might enhance EE instructor motivation and thus influence more positive outcomes for program participants. We define motivation as *the set of energetic forces that account for an individual's intensity, direction, and persistence in their behavior* (Pinder, 1998; Robbins & Judge, 2008). Through interviews with EE instructors and program supervisors we explored the most salient motivations of instructors, the organizational practices

that appeared to influence those motivations, and whether different types of employees tended to express different explanations for their motivation. We describe key theoretical concepts relevant to these questions before explaining our methodological approach in more detail below.

Theoretical framework

We draw upon Deci and Ryan's (1985, 2002) self-determination theory (SDT) and Herzberg's (1966) motivation-hygiene theory to examine the influences of organizational practices on EE instructors' workplace motivations to teach high quality EE programs. These theories are described below, and their hypothesized influences on employee motivation are displayed in Figure 1. Acknowledging that these influences may differ for different types of employees, we also examine the potential moderating influence of instructor career stages (Morrow & McElroy, 1987), further explained below.

SDT distinguishes between extrinsic and intrinsic motivations, and identifies conditions that support intrinsic motivation (Deci & Ryan, 1985, 2002). Extrinsic motivation in the workplace is driven by external pressures or incentives, including deadlines, benefits, rewards, and penalties. Intrinsic motivation refers to feelings of interest in or enjoyment of performing the work itself. Employees who are intrinsically motivated to perform job tasks commonly achieve more positive and persistent performance outcomes than employees who are extrinsically motivated (Deci et al., 1989). Workplaces that support employee autonomy, competence, and relatedness tend to foster greater intrinsic motivation in employees (Deci & Ryan, 1985, 2002). Autonomy refers to feeling a sense of freedom to make choices in the workplace, competence refers to feeling a sense of mastery of work tasks, and relatedness refers to feeling valued by coworkers. Each has been linked to effective work behaviors and performance (e.g., Baard et al., 2004; Deci et al., 1989; Theurer et al., 2018; Van den Broeck et al., 2016).

Herzberg's (1966) motivation-hygiene theory, also referred to as the "two-factor theory," distinguishes between "hygiene" factors and "motivation" factors in the workplace. *Hygiene factors,* including organizational policies, pay, workplace conditions, and relationships among coworkers and supervisors, are necessary for basic operation of an organization. However, they rarely sustain motivation in employees to do their best work. Rather, hygiene factors more commonly cause dissatisfaction among employees and reduce motivation if they are absent or drop below certain thresholds. Conversely, *motivation factors*, which we refer to as "motivators," include a sense of achievement, advancement, recognition and meaningfulness of the work itself. These motivators more commonly generate intrinsic motivation for employees to perform their best and are associated with *job enrichment* as opposed to *job enlargement*. Providing
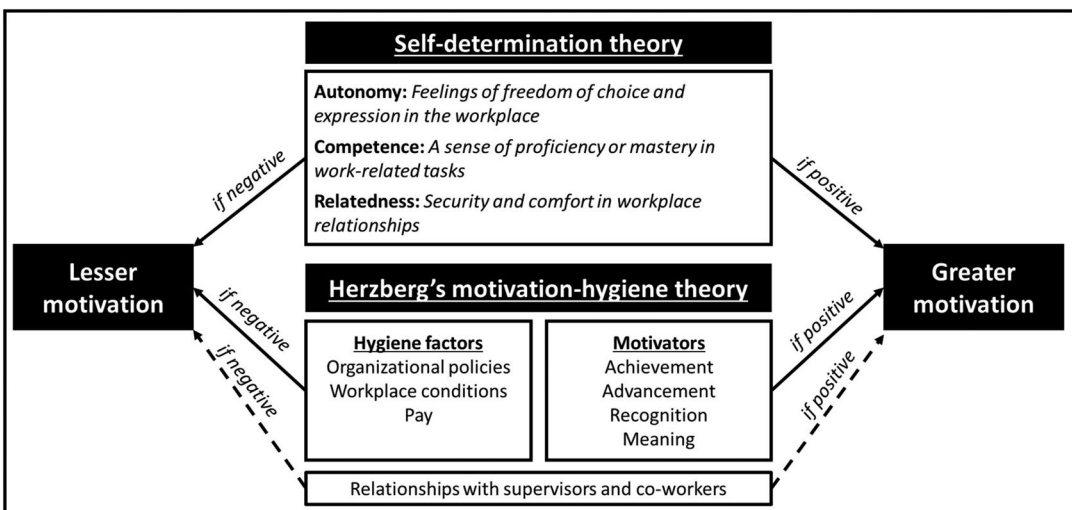
Figure 1. A conceptual model of factors from the literature that drive workplace motivations, based on Deci and Ryan (1985, 2002); Herzberg (1966); and Holmberg et al. (2018).

meaningful tasks, constructive feedback, and growth opportunities are associated with the former; simply diversifying work or adding mundane tasks are examples of job enlargement, which can reduce employee intrinsic motivation.

Motivation-hygiene theory has been studied in varied work contexts (e.g., House & Wigdor, 1967; Hur, 2018; Sanjeev & Surya, 2016). However, there is some debate about whether employee relationships with coworkers and supervisors act more as hygiene factors or motivators. Studies have suggested that the motivating role of coworker relationships may be influenced by contextual factors, including characteristics of the work environment and job tasks (Hines, 1973; Holmberg et al., 2018). Coworker relationships might serve a more motivating role in work environments that require greater degrees of collaboration, deliberation, or coordination between employees and more of a hygiene role in situations where work is routine or individualized. For instance, Holmberg and colleagues (2018) determined that relatedness was a motivating factor among nursing personnel, as it provided support in their collaborative workplace. EE work environments are typically collaborative and creative, rather than routine. As such, we might expect that coworker relationships could play a motivating role in these settings.

Relationships between organizational factors and worker motivations might also shift as workers progress through stages throughout their careers. These stages are often defined by employee age and years of experience (Bedeian et al., 1991; Morrow & McElroy, 1987) and are generally characterized by distinct attitudes toward work and resulting behaviors (Aryee et al., 1994; Bedeian et al., 1991; Cohen, 1991; Morrow & McElroy, 1987). Though studies often adapt the names and specific groupings of career stages to account for differences in specific work environments, three stages are generally present: (a) entry level; (b) an active advancement stage; and (c) a mature stage, where individuals near retirement. As employees progress through career stages, they have been found to display higher levels of organizational commitment and lesser intent to leave their positions (Kooij et al., 2008). Drivers of employee commitment to their organizations may change as they progress through different career stages. Organizational commitment, or a commitment to an organization's mission and a desire to improve an organization's performance (Mowday et al., 1982), is often associated with professional advancement opportunities for employees in later career stages (e.g., Riketta, 2002), whereas employees in earlier career stages typically note supervisory support as a stronger driver of commitment (Ayree et al., 1994).

While the term *organizational culture* refers to a broad system of shared meanings and norms held by members that distinguish one organization from another (Robbins & Judge, 2008), we focus specifically on *organizational practices*, which represent the tasks and routines that comprise the regular operations of an organization. We place our focus on practices in an effort to identify specific tangible steps that EE organizations might take to positively influence the motivation of their educators.

Research questions and epistemological approach

Drawing upon SDT, motivation-hygiene theory, and the career stage literature, this study addresses the following research questions. Figure 2 provides an overview of the key themes and relationships under consideration in the study.

1. What motivates EE instructors to perform their best?
2. How do organizational practices influence EE instructor motivations?
3. Are the answers to the first two questions different for early and late career stages?

Although we began with a general theoretical framework, we proposed no specific hypotheses, rather using the framework to identify general themes for qualitative exploration. This enabled other pertinent themes to emerge. We also felt that a qualitative approach would identify interviewees' most salient beliefs. Qualitative inquiry represents an effective way to acknowledge the lived experiences of research subjects and can measure concepts that may be difficult to quantify, allowing interview participants to elaborate on their personal experiences (Creswell, 2013; Smith-Sebasto, 2000).
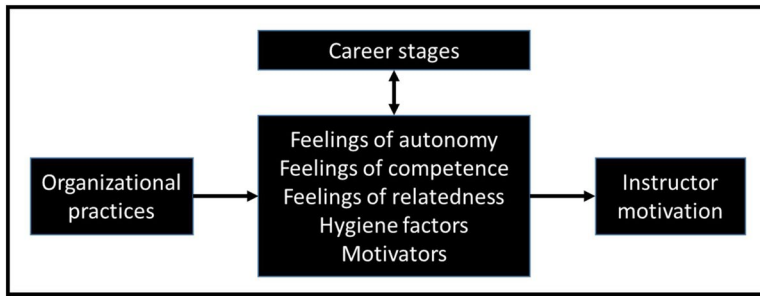
Figure 2. Conceptual diagram of the study.

Methods

Data collection

This research was conducted as part of a larger study examining the specific pedagogical approaches associated with more positive student outcomes of EE field trips across the United States. The larger study included field visits by four research teams to observe EE field trip programs for middle school students (grades 5–8) provided by 90 organizations. In the larger study, we selected organizations to maximize diversity of programming and context (see Dale et al., 2020 for more detail). Two researchers, each members of separate research teams, visited 48 of those organizations, including units of the National Park Service, nature centers, and other nonprofit and governmental educational centers, between January and June 2018, and conducted interviews with instructors and supervisors.

The researchers aimed to interview the lead instructors of each observed program while visiting each organization. "Lead instructors" were identified as educators who were central to delivering educational programming to students. We excluded volunteers from the study, focusing only on paid employees. Supervisors were identified as having management responsibilities and oversight over instructional staff and programming.

Before each interview, interviewees read and verbally agreed to a consent statement and were given a short explanation of the purpose of the research and types of questions they would be asked. Instructors were asked about their motivations for working in EE, their autonomy in lesson planning and teaching, how feedback mechanisms worked within their organization, job training opportunities, their sense of relatedness with their coworkers, and the elements of their jobs that motivated them the most (for full interview guide, see Appendix A). Supervisory staff were asked about their own practices as supervisors relevant to each of the topics covered in the instructor interviews (e.g., if/how they granted lesson planning autonomy, how they provided feedback) and to discuss any specific practices they felt were drivers of their organization's culture, including their specific hiring techniques (for full interview guide, see Appendix B). All questions were open-ended, and researchers asked follow-up and probing questions to further understand interviewees' responses.

We interviewed 68 lead instructors and 22 supervisors from 40 organizations in 15 states. We were unable to conduct interviews at 8 organizations due to logistical challenges (e.g., the research team had to leave to travel to another site or a potential interviewee needed to leave before completing the interview). Supervisors were unavailable at 19 sites. In one organization, we were only able to interview supervisory staff. We collected data from both instructors and supervisory staff in 20 organizations (Table 1). Interviews were normally conducted on-site. However, seven instructors and eight supervisors participated in phone interviews due to logistical challenges on-site. Of the 40 participating organizations, twenty-eight were nonprofits; twelve were government-run. In total, we interviewed 16 supervisors and 52 instructors from nonprofit organizations, and 6 supervisors and 16 instructors from government organizations. According to OECD (2020) definitions, 28% of the organizations would be considered microenterprises (fewer than 10 employees); 55% were small enterprises (between 10 and 50 employees); and 18% were medium-sized (between 50 and 249 employees).

Table 1. Locations of organizations in the study, and participating instructors and supervisors.

State	Number of participating organizations	Number of instructors interviewed	Number of supervisors interviewed
Arizona	6	7	4
California	10	25	6
Connecticut	1	1	0
Illinois	2	3	3
Indiana	2	3	3
Massachusetts	1	1	0
Maryland	2	5	0
Michigan	1	0	1
Maine	2	3	0
Minnesota	1	2	0
New York	3	5	0
Ohio	1	1	2
Pennsylvania	4	5	0
Virginia	2	2	2
Wisconsin	2	5	1
Totals	**40**	**68**	**22**

The length of interviews ranged from 10 to 53 minutes, averaging 18 minutes. The length of the interviews was dictated by the propensity of the interviewee to elaborate and by their time constraints. All interviews were recorded and transcribed verbatim. Interview transcripts were analyzed in NVivo 12, a software program that allows for transcript coding and the classification of passages into thematic categories.

Analysis

Transcripts were read several times, often accompanied by their corresponding audio recordings to identify any instances of ambiguity or emphasis not captured in the interview transcriptions. We then used codes informed by both motivation-hygiene theory and SDT to categorize individual responses that referred to feelings of autonomy, competence, relatedness, motivation, and hygiene factors. We also coded for emergent themes within the data that helped to explain the nature of work tasks, career stages, and specific motivating factors. Discussions between the authors helped to refine the coding scheme and organize the data into coherent themes.

Results

Instructor types

We developed a typology identifying three instructor types based on the career stages literature (Kooij et al., 2008). *Exploratory instructors* were new to the profession and characterized by responses indicating a noncommittal attitude toward working in EE. Themes of impermanence and inexperience commonly emerged in interview responses from these instructors. Often, exploratory instructors indicated that they were unsure of their future career path and were just trying out EE. They typically noted that prior experiences that aligned well with EE (e.g., working with kids, experiences in the outdoors, degree in the natural sciences) had led them to their current positions. For example, one exploratory instructor indicated that he had recently graduated from college with a degree in secondary education, but he was unsure if classroom teaching was what he wanted to do. He sought out EE as a way to explore the possibility of pursuing a career in teaching in less formal environments.

Career instructors were characterized by a marked commitment to working in EE. Examples of career instructors included those who switched career paths later in life as well as those who had worked in EE for their entire career. Career instructors were generally older than exploratory instructors, but there were exceptions. The key differentiator between career instructors and exploratory instructors was a clear, marked commitment to working long-term as an environmental educator.

Transitional instructors typically shared characteristics with the other two groupings. These instructors were working in EE while looking for other opportunities. Because there were only five transitional instructors in the sample, our comparisons focus only on differences between exploratory and career instructors.

We identified 24 exploratory and 39 career instructors in our sample (Table 2). Exploratory instructors averaged 25 years of age, just under three years of experience in EE, and approximately 1.5 years with their current organization. Career instructors averaged 40 years of age, 14 years of experience in EE, and approximately 9.5 years with their current organization. Roughly two thirds of both the exploratory and career instructors self-identified as female. We also encountered a higher proportion of career instructors in governmental organizations than in nonprofits. However, we can draw no conclusions about these distributions more broadly due to our non-representative sampling techniques.

What motivates EE instructors?

We asked each instructor to indicate the elements of their job that motivated them the most. We categorized responses by the key themes depicted in Figure 1. Hygiene factors and recognition did not emerge as prominent elements in instructors' explanations of their motivations. Rather, an additional concept, novelty, appeared to serve as both a motivator and a hygiene factor. Most motivators were held in common, though some appeared to differ between exploratory and career instructors (Table 3). We discuss specific organizational practices related to these motivating factors under the heading "*How do organizational practices influence EE instructor motivations?.*"

Autonomy

Autonomy did not arise directly in response to questions about what motivated EE instructors. Rather, instructors seemed to take it for granted that high levels of autonomy were necessary for effective teaching. Although some instructors expressed some dissatisfaction with certain tasks that stretched beyond their teaching assignments, none discussed autonomy (or lack thereof) as a direct motivator or de-motivator. In short, autonomy was consistently sufficient across all organizations in the study such that it did not explain variability in instructor motivations.

Table 2. Breakdown of instructor types by organization types and size.

Instructor Types	Governmental	Nonprofit	Size		
			Micro (<10)	Small (10–50)	Medium (50+)
Exploratory	2	22	3	16	5
Career	13	26	16	16	7
Transitional	1	4	1	2	2
Totals	**16**	**52**	**20**	**34**	**14**

Table 3. The most salient motivating factors for exploratory and career instructors.

Theme	Exploratory	Career
Autonomy	High among all organizations. Implicitly important, but not explicitly discussed as direct motivators by either instructor type.	
Competence	Positive student feedback (+) Personal growth opportunities (+)	
Relatedness	Shared values and interests (+) Age differences (-)	
Meaningfulness	Working with kids/students (+) Opportunities to have meaningful impacts on students and the environment (+)	
		Organizational loyalty associated with alignment with mission (+)
Novelty	Novel work setting (+)	Lack of variety in work tasks (-)

Competence, achievement, and advancement

Responses indicated sense of achievement was interrelated with feelings of competence. Further, we found that professional development was often discussed in terms of both personal growth (enhancing competence) and career advancement, with a strong emphasis on the former. Feelings of competence and achievement were reflected primarily in instructors' comments about student feedback, learning by doing, and opportunities for professional development. Both types of instructors reported these motivators, though exploratory instructors placed greater emphasis on drawing their motivations from professional development opportunities.

Both career and exploratory instructors also commonly noted the enjoyment they felt from observing candid student reactions to their lessons. Some mentioned that student feedback was the most motivating element of their positions. An exploratory instructor reflected, "I had a student tell me that this was the best field trip he had ever taken in his life at school and that we were some of his favorite instructors."

While all types of instructors expressed interest in professional development, exploratory instructors attributed stronger motivations associated with learning opportunities that could aid in their progression as working professionals. Most focused on personal growth as professionals in general, rather than career advancement to a pre-determined higher position. This may reflect limited upward mobility within many EE-providing organizations, which tend to have small staff numbers dedicated solely to EE. While some mentioned formal trainings or professional development opportunities, most described on-the-job learning. One exploratory instructor described how the challenges they faced in their work helped them to grow as an educator, saying, "Every day is like a new challenge to see if I can get the kids interested or get a tough group of kids to behave better."

Relatedness

Instructors often referenced shared interests and values among staff when describing relationships with their coworkers. Instructors noted shared values, political ideologies, life circumstances, and hobbies. For example, one exploratory instructor noted, "A lot of us are passionate about the same things, and that's why a lot of us work here. And not only that, but we're basically living the same lives right now." Feelings of relatedness also clearly stretched across career stages. One career instructor explained, "A lot of us have the common thread of wanting to be outside and connect with this park in some way, shape, or form…so we just have shared interests that link us." Some instructors also noted that their coworkers' diverse array of prior experiences allowed the opportunity to learn from one another. While some supervisors made explicit efforts to build community through group trainings or social events, interviewees rarely mentioned these as key drivers of relatedness. Rather, assumptions of shared values and identities appeared to create comfortable social interactions between coworkers.

Meaningfulness

While each of the themes discussed above can make a job feel more meaningful, instructors highlighted a few specific elements. Both exploratory and career instructors stressed the meaningfulness of their positive interactions with youth and the potential impacts of their teaching on students and the environment. Instructors emphasizing these impacts stressed that they created a sense of meaning or purpose in their work. One exploratory instructor explained, "I think it's the fact that, in a way, I know I'm making a difference. I think that's pretty important. I think it makes you feel like you have a purpose; you're important." Similarly, a career instructor noted, "I really kind of realized that inspiring the next generation is one of the most important things that we can do." Instructors also indicated that working with students played an instrumental role in keeping them from tiring of their work. A career instructor explained, "The energy of youth can take you out of any bad situation and really keep you present."

Also heightening instructors' feelings of meaningfulness were strong alignment between organizational missions and personal values, especially for career instructors. For instance, a career instructor in the US Park Service indicated how the mission and goals of the organization motivated him to perform well. "That's part of the reason why we are in this green and grey, because we get to work in absolutely amazing

areas around the US telling the national story, our heritage … following that motto, that mission statement." Career instructors more commonly expressed feelings of loyalty associated with this alignment.

Novelty

Both exploratory and career instructors indicated drawing motivation from novel elements of their positions. Novelty for exploratory instructors most commonly manifested in general characteristics of the position – for example, the ability to work outside in interesting settings with kids. "I love being outside. I love the outdoors. And so to be able to teach, and that's my job, is being outside, that's pretty motivating in itself." Career instructors also highlighted the importance of the novelty of their work and often referenced this through comparing the EE work environment to prior work experience in other types of organizations (e.g., K-12 schools, research labs, etc.). A career instructor explained, "The fact that I get to go to the beach and catch crabs sometimes is pretty phenomenal. And I've been in the traditional classroom, and the fact that I don't have any grading, and no parent phone calls or conferences, or really administration … All that stuff that gets in the way of teaching [and] I don't have to deal with it."

Career instructors more commonly discussed novelty in terms of a desire for more varied work tasks than did exploratory instructors. One career instructor explained, "I think particularly after 10 years of essentially the same job, 20 years at the same park, and 26 years with the same agency, that anything that's different from a standard day is… I'm more excited about that day usually." In short, novelty for exploratory instructors was inherent in the position and made the job feel more meaningful. Novelty for career instructors seemed to function more as a hygiene factor. If work got too monotonous or repetitive, motivation was dampened.

How do organizational practices influence EE instructor motivations?

A range of specific organizational practices appeared to influence instructors' feelings of autonomy, competence, relatedness, job meaningfulness, and novelty. The following section identifies common themes that emerged. The organizations in the study exhibited consistently high levels of autonomy and relatedness. Practices influencing feelings of competence and job meaningfulness were somewhat more variable.

High levels of autonomy

We discussed autonomy with interviewees in terms of both program design and program delivery. Although instructors' degree of autonomy in developing programmatic materials differed among organizations, no interviewees felt overly constrained in their program delivery. While formal educational standards typically provided a clear framework (and some constraints) for developing program content, standards were generally broad enough to allow for significant creativity in program design. One supervisor explained,

> We try to allow programs to have internal flexibility to meet standards that the kids have to adhere to in school. So, for example, a class that's doing canoeing, they may not have any requirement whatsoever to do canoeing…but they might have some physical education requirements, and so our canoe program, where we get to teach them about aquatic wildlife and aquatic plants and just general ecology in water environment, might actually meet some physical education requirement that they have… So the job of the teacher…would be to communicate with the school in advance, and then try to formulate his tour or his trip around that.

Some supervisors indicated that instructors were sometimes tasked primarily with learning how to deliver previously designed programs consistently and proficiently to visiting groups. These organizations essentially offered a "menu" of programs for visiting schoolteachers or administrators to choose from, and often referred to leading programming as delivering a "product." Despite this focus on meeting specific pre-determined objectives, all instructor types noted that they felt sufficiently autonomous and valued their ability to experiment with the delivery of program content. A career instructor noted,

I try really hard to stick to the curriculum and to try to hit our challenges, but I can change … the direction in which I want it to go. And so I'll still hit all of our challenges and all of our curriculum, but me personally, I'll go at it in a more mellow way or trying to be a lot more scientific or make it a little goofier, depending on how bored I am with the program.

Although some career instructors noted some frustrations when their workload drifted too far from teaching kids, employee autonomy outside the realm of instruction was also typically high. Some organizations specifically focused on employee empowerment. An exploratory instructor explained, "They talked to me about making sure, like if you don't know how to do something, telling them, getting training on it, instead of keeping quiet." Another exploratory instructor described on emphasis on flexibility. "One of the things that when I got hired initially was emphasized, is *Semper Gumby*, always flexible." He explained that this flexibility not only meant pitching in when necessary, but also encouragement to innovate.

Promoting competence

Feelings of competence were influenced by formal organizational practices, such as trainings and feedback, as well as informal efforts by employees. Supervisors encouraged professional development by sponsoring attendance at external trainings or professional conferences and by offering in-house training opportunities. However, some instructors mentioned that high workloads often stood in the way of taking advantage of these opportunities, and others noted insufficient funding. In some cases, exploratory instructors indicated that their organizations only tended to offer opportunities to those in more senior positions. In-house training was more common throughout our sample.

In some cases, opportunities for peer learning enhanced feelings of competence. Exploratory instructors noted that they were encouraged to observe programming led by their coworkers, and that they used these observations to inform their personal teaching styles. An exploratory instructor explained this process by saying, "A lot of it is you observe, you see how other instructors do it, and then you kind of create your own style based on that." Career instructors indicated that they would solicit feedback from coworkers and program participants. One instructor described developing an evaluation sheet for classroom teachers to supplement the other types of performance feedback that she received.

Exploratory instructors most frequently indicated that the supervisory performance feedback they received was inconsistent and diminished significantly after their initial training period. One said, "It was more often in the beginning. I'd receive feedback maybe once or twice a week from the supervisors or from other coworkers. And I had more evaluations because I was just starting…But I don't receive feedback more than maybe once a month now."

Career instructors indicated that they received very little performance feedback from their supervisors, and that the feedback they did receive was sometimes ineffective, most commonly entailing informal chatting with supervisors after programs, annual written reviews, or feedback forms distributed to classroom teachers. Classroom teacher feedback forms appeared to be the most common organizational practice for delivering feedback to career instructors, though many instructors indicated that classroom teachers did not provide critical advice useful for improvement. Most instructors noted that the most useful feedback they received was from coworkers or supervisors who were familiar with leading programming and could provide specific advice on how to improve.

Both career and exploratory instructors consistently expressed desires for more and better feedback that could help them improve their craft. Many interviewees also noted that turnover in supervisory staff contributed to inconsistency in performance feedback, both in its delivery and frequency.

Promoting feelings of relatedness

Relatedness was discussed in a few different ways during interviews. In some cases, specific efforts were made to enhance staff relationships. Organizations occasionally sponsored events for their instructors, including cookouts, group sporting events, and annual group retreats. Some organizations also indicated that they held regular meetings (e.g., weekly, bi-weekly) with their education staff to allow for the group to brainstorm and work through issues together. Instructors in these organizations noted that these types of meetings also helped to build feelings of community among the education staff.

Some instructors noted that age differences between older and younger staff, as well as long work days in sometimes difficult working conditions occasionally strained feelings of relatedness among coworkers. However, this was not a dominant theme and reports of significant conflicts or dislike between instructors were absent from our sample. Most instructors, rather, indicated that the shared values and interests of staff within their organizations were the strongest sources of positive feelings of relatedness.

Organizations could potentially promote this type of relatedness, driven by an alignment of values and interests, through screening practices in the hiring process as well as socialization, or "onboarding," practices on the job that highlight commonalities between employees' ideals and the organizational mission and values. In our sample, however, intentionally designed onboarding practices rarely emerged outside the context of initial trainings on the mechanics of teaching programs or formally shadowing more experienced instructors to learn the ropes. One exception involved an organization that conducted an all-staff retreat in which employees in various roles throughout the organization could meet and interact. "Everybody on the staff goes to a summer camp, and we hang out for two days and do a lot of mission-focusing and fun activities." The recognition of values alignment for one exploratory instructor who experienced the retreat was particularly strong. "It feels like, like [the executive director] has the same values as me, has the same values as…everyone's here for the same reason, basically." Otherwise, the recognition of shared values tended to emerge either as a "given" element of the type of organization that does EE and its mission, or through working together, observing, and getting to know other instructors.

Influencing feelings of meaningfulness

The values-driven nature of work within EE-providing organizations, as well as the tasks characteristic of the work (e.g., working with children outdoors, teaching environmental concepts), appeared to contribute to a strong sense of meaningfulness among instructors. These feelings were sometimes eroded in cases in which instructors lacked opportunities for advancement (often due to funding constraints or small organizational structures) or when individuals felt overloaded with mundane, repetitive, or off-mission tasks. Some of these factors reportedly influenced high turnover. One supervisor indicated that instructors worked in his organization for an average of six months total.

In contrast to the task overload noted above, which is akin to Herzberg's *job enlargement*, some career instructors reporting thriving in middle-management-type positions. These positions provided what Herzberg might refer to as *job enrichment,* as they provided meaningful opportunities for advancement within their organization and new supervisory tasks, including providing performance feedback, working on special projects, and program design, in addition to teaching programs.

Novelty across career stages

Organizations that offer EE programming commonly provide novel work environments relative to many other professions. They thus attract people for whom this novelty at first serves as a motivator and subsequently becomes a hygiene factor. Career instructors who found themselves running the same programs over and over again, or were assigned to other repetitive routine tasks, longed for greater variety in their day-to-day experiences. Exploratory instructors more commonly expressed notions of novelty in an exclusively positive light, highlighting the novel portions of their job (most commonly, spending time in beautiful or exciting settings and teaching kids) as energizing motivators.

Discussion

We set out to identify salient motivators of EE instructors and the organizational practices that influenced them. The most consistent motivating factors discussed by respondents included positive student feedback, positive relationships with other staff, and opportunities to work with kids in outdoor settings and have meaningful impacts on their lives and the environment. Each of these factors was linked to organizational practices that promoted employees' feelings of autonomy, competence, relatedness, and meaningfulness. In addition, exploratory instructors noted the importance of novelty for embarking upon an

EE career, and career instructors noted its importance for maintaining enthusiasm and motivation over time. Table 4 summarizes the organizational practices that emerged in this study along with additional recommendations developed though comparison with prior research and theory.

Most motivating factors were strongly underpinned by a shared commitment to similar values among employees within EE-providing organizations, particularly those concerning the importance of teaching children to value the environment. The alignment between instructors' values and the values reflected in the missions of these organizations generated feelings of meaningfulness in instructors' work. Moreover, shared values between employees helped to establish feelings of relatedness within organizations. Herzberg (1966) theorized that relationships among coworkers in the workplace generally function as hygiene factors. Similar to studies of other collaborative work environments, however, our evidence suggests that relatedness functioned as a motivating element within the EE organizations in our sample (e.g., Hines, 1973; Holmberg et al., 2018).

In some of the organizations under study, the prevalence of values alignment was the result of selective recruiting of instructors exhibiting specific qualities. In others, it seemed that individuals self-selected to apply for positions within these organizations due to their own perceptions of alignment in values, interests, or work tasks. Few interviewees discussed explicit efforts to emphasize or build a shared vision or collective commitment to the organizational mission. Interviewees in only one organization discussed an organizational retreat aimed at these goals.

The literature on organizational socialization provides some further insights on developing values alignment, organizational commitment, and motivation in employees. Effective onboarding of new employees often includes demonstrating person-organization fit through clearly defining organizational values and norms, setting clear performance expectations, facilitating positive relationship development among staff, delineating a clear career path, and highlighting the role individuals play in achieving the organizational

Table 4. Observed and proposed organizational practices influencing instructor feelings of autonomy, competence, relatedness, and meaningfulness.

Theme	Observed organizational practices (positive/negative influence)	Additional proposed organizational practices
Autonomy	• Freedom in program design and program delivery (+) • Encouragement of innovation (+)	• Participatory evaluation • Personal-identity socialization • Purposeful onboarding
Competence	• In-house training (+) • Peer observations & learning (+) • External formal professional development (+) • Encouragement of innovation (+) • Student feedback (+) • Insufficient feedback from supervisors (-) • Turnover in supervisory staff (-) • Insufficient feedback from participants or visiting teachers (-) • Insufficient time or funding for professional development (-)	• Participatory evaluation • Personal-identity socialization • Supervisor engagement and constructive feedback *for exploratory instructors*
Relatedness	• Informal gatherings (+) • Brainstorming meetings (+) • Difficult working conditions (-)	• Participatory evaluation • Recruiting/hiring new employees who share organizational values • Purposeful onboarding
Meaningfulness	• Gathering student feedback (+) • Encouragement of innovation (+) • Job enrichment (increasing supervisory duties; special projects; program design), *esp. career instructors* (+) • Lack of advancement opportunities (-) • Job enlargement (overloading with undesirable or off-mission tasks) (-)	• Participatory evaluation • Recruiting/hiring new employees who share organizational values • Purposeful onboarding • Ensuring *career instructors* can continue the tasks they love most as they are promoted into new positions.
Novelty	• Lack of variety of tasks, *esp. career instructors* (-)	• Emphasizing novel work spaces and tasks in recruitment • Ensuring variety in work tasks, *career instructors*

mission (Noe et al., 2010; Stein & Christiansen, 2010). One form of effective onboarding, "personal-identity socialization," involves drawing attention to new employees' self-identified strengths and explicitly linking them to organizational values and goals to enable new hires to recognize how they can express themselves (i.e., flex their competence or autonomy) to achieve shared goals (Cable et al., 2013). Regardless of their source, shared values can have strong implications for instructor autonomy as well.

Employee feelings of autonomy are considered particularly valuable in organizations with clear mission statements and a shared sense of values among employees (Lipsky, 1980; Wilson, 1989). These conditions enable employees to innovate and solve problems without concerns that they will stray from organizational goals. Innovation is particularly important in organizations that require creativity or responsiveness to clients rather than simple mechanistic or routine tasks (Hersey et al., 2007; Theurer et al., 2018). Instructors in this study clearly valued their autonomy in teaching their programs. They also described taking on personal initiatives and developing activities in support of programming. Of course, autonomy without actual competence can also cause problems for an organization (Stern, 2018). In this study, instructors indicated that their autonomy was helpful in furthering their feelings of competence, as they felt the "latitude" to seek out varying forms of performance feedback and to participate in or lead certain training opportunities.

Learning from peers further enhanced feelings of competence and relatedness. In a sense, these interactions approximate many of the characteristics of "communities of practice," which describe groups of people who share knowledge and expertise through ongoing interaction (Wenger, 1998). Through peer collaboration, members in a community of practice help each other answer questions, solve problems, gain new perspectives, and hone skills for subsequent use. As these communities develop, their shared goals and experiences often result in the greater recognition of a shared common purpose and strengthened commitment to working together to achieve it (Wenger et al., 2002). As such, these practices can facilitate continued learning, collaboration, and organizational commitment among employees. Both career and exploratory instructors in our sample regarded peer learning in a positive manner. Creating or promoting more opportunities for peer-to-peer feedback and learning could thus contribute to enhanced motivations and mission achievement in EE organizations.

Participatory evaluation processes represent a particularly relevant opportunity to enhance feelings of autonomy, relatedness, competence, values alignment, and job meaningfulness while also addressing ubiquitous desires for more meaningful feedback. For example, Powell and colleagues (Powell et al., 2006) describe how participatory evaluation, in which staff members collaborate to determine appropriate outcomes measures, collect data, interpret results, and discuss program adjustments, can help to crystallize a shared vision for organizational goals. Participatory evaluation processes can also clarify values alignment (enhance relatedness and meaningfulness), generate excitement about collecting data (job enrichment), provide meaningful performance feedback (enhance competence), establish a mechanism for empowering employees to implement programmatic changes (enhance autonomy), supply evidence of outcomes achievement (enhance job meaningfulness and feelings of competence), and promote continual improvement (further enhancing competence and job meaningfulness). Each of these benefits can augment both organizational commitment and performance (Powell et al., 2006; Stern, 2018).

Accounting for differences in career stages

The most motivating organizational practices differed slightly between *exploratory* and *career* instructors. While exploratory instructors were more commonly motivated by opportunities to grow professionally, career instructors more commonly discussed the role of variety within their work tasks. We urge some caution in considering the implications of this finding. Herzberg (1966) cautions against task diversification for its own sake (*job enlargement*), advising that *job enrichment* only occurs when new tasks add depth, variety, and meaning to a job. Examples of job enrichment include tasks that are holistic (following an initiative from beginning to end), are perceived to have a meaningful impact, use a variety of skills, enable autonomy, or provide tailored feedback to an employee (Hackman & Oldham, 1980; Stern, 2018). Our study suggests that more experienced employees may yearn for these types of opportunities more than those in the exploratory phase. However, there may be opportunities to work across the spectrum of experience levels for enhancing both the novelty and the meaningfulness of the work.

Herzberg's (1966) motivation-hygiene theory also provides insights into differences between instructors at different career stages. Exploratory instructors indicated that the ability to work outdoors in exciting areas was a motivating element of their job, whereas career instructors indicated that they were more strongly motivated by variety in their work. As instructors develop further experience and commitment to EE, the novelty of working outdoors may shift from a motivating element to a hygiene factor. In other words, more experienced instructors may expect a certain amount of work outdoors (or directly teaching) and become dissatisfied if too much of their work strays from their original interest. However, more of the same may no longer serve to increase motivation. While career instructors in our study expressed becoming more motivated by taking on new responsibilities, they could also become dissatisfied if they were no longer able to participate in teaching outdoors. Balancing motivation and hygiene thus likely involves both taking on new meaningful responsibilities and maintaining participation in the tasks that employees have previously found most joyful.

Career stages studies often note that work commitment typically increases as employees progress along career stages (Kooij et al., 2008). In a study of work attitudes in various public and private sector organizations, Aryee and colleagues (Aryee et al., 1994) concluded that work commitment in later career stages was driven by opportunities for skill development, whereas work commitment in earlier stages resulted from effective supervisory support. We found similar results in our study. Considering career stages may be useful for EE organizations to develop tailored supervisory approaches cognizant of the relative stage of each instructor. For instance, facilitating opportunities for career instructors to become more involved with supervision or organizational decision-making may recognize their motivations for meaningful variety in their daily work. Encouraging exploratory instructors to become involved in program design and evaluation may offer opportunities aligned with their interests in professional development, feedback and growth.

Limitations

This exploratory study was undertaken as part of a larger research project. Data stemmed from a convenience sample of EE instructors and supervisors across a wide range of EE organizations within the United States. The sample is not representative of any broader population, and interviews were not exhaustive, but rather narrowly targeted (averaging less than twenty minutes in length). As such, this effort cannot provide broader claims about differences between government and nonprofit EE-providing organizations, nor large and small ones. However, we believe the themes discussed herein are relevant to a wide array of EE organizations, as comparisons to relevant literature echo similar findings. We present our findings in the hopes they (1) add tangible examples and context to highly relevant organizational theory that rarely finds its way into the EE literature, and (2) provide a set of principles for readers to consider in their own organizational practice. We hope the key themes and recommendations contained herein provide ideas for enhancing the experiences of EE educators and their students across the spectrum.

Conclusion

Strong values alignment between employees and their organizations played a powerful role in instructor motivations for teaching EE programs. We also uncovered desires for additional feedback, professional development, and job enrichment through the diversification of meaningful tasks. The organizations in the study consistently provided high levels of autonomy for employees, which enabled many to find ways to enrich their own experiences. Targeted efforts expanding feedback through participatory evaluation, reinforcing the positive impacts of the work, and providing clearer pathways for professional advancement may further enhance instructor motivation. Similarly, purposefully screening new employees for shared values in hiring processes and effective socialization also represent promising practices.

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References

Ardoin, N. M., Bowers, A. W., Roth, N. W., & Holthuis, N. (2018). Environmental education and K-12 student outcomes: A review and analysis of research. *The Journal of Environmental Education*, *49*(1), 1–17. https://doi.org/10.1080/00958964.2017.1366155

Aryee, S., Chay, Y. W., & Chew, J. (1994). An investigation of the predictors and outcomes of career commitment in three career stages. *Journal of Vocational Behavior*, *44*(1), 1–16. https://doi.org/10.1006/jvbe.1994.1001

Baard, P. P., Deci, E. L., & Ryan, R. M. (2004). Intrinsic need satisfaction: A motivational basis of performance and well-being in two work settings. *Journal of Applied Social Psychology*, *34*(10), 2045–2068. https://doi.org/10.1111/j.1559-1816.2004.tb02690.x

Bedeian, A. G., Pizzolatto, A. B., Long, R. G., & Griffeth, R. W. (1991). The measurement and conceptualization of career stages. *Journal of Career Development*, *17*(3), 153–166. https://doi.org/10.1177/089484539101700301

Cable, D. M., Gino, F., & Staats, B. R. (2013). Reinventing employee onboarding. *MIT Sloan Management Review*, *54*(3), 23–28.

Cohen, A. (1991). Career stage as a moderator of the relationships between organizational commitment and its outcomes: A meta-analysis. *Journal of Occupational Psychology*, *64*(3), 253–268. https://doi.org/10.1111/j.2044-8325.1991.tb00558.x

Creswell, J. W. (2013). *Qualitative inquiry & research design: Choosing among five approaches* (3rd ed.). SAGE.

Dale, R. G., Powell, R. B., Stern, M. J., & Garst, B. A. (2020). Influence of the natural setting on environmental education outcomes. *Environmental Education Research*, *26*(5), 613–631.

Deci, E. L., Connell, J. P., & Ryan, R. M. (1989). Self-determination in a work organization. *Journal of Applied Psychology*, *74*(4), 580–590. https://doi.org/10.1037/0021-9010.74.4.580

Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self determination in human behavior*. Plenum.

Deci, E. L., & Ryan, R. M. (2002). *Handbook of self-determination research*. University of Rochester Press.

Hackman, J. R., & Oldham, G. R. (1980). *Work redesign*. Addison-Wesley.

Hersey, P., Blanchard, K. H., & Johnson, D. E. (2007). *Management of organizational behavior: Leading human resources* (7th ed.). Pearson Prentice Hall.

Herzberg, F. I. (1966). *Work and the nature of man*. World.

Hines, G. H. (1973). Cross-cultural differences in two-factor motivation theory. *Journal of Applied Psychology*, *58*(3), 375–377. https://doi.org/10.1037/h0036299

Holmberg, C., Caro, J., & Sobis, I. (2018). Job satisfaction among Swedish mental health nursing personnel: Revisiting the two-factor theory. *International Journal of Mental Health Nursing*, *27*(2), 581–592. https://doi.org/10.1111/inm.12339

House, R. J., & Wigdor, L. A. (1967). Herzberg's dual-factor theory of job satisfaction and motivation: A review of the evidence and a criticism. *Personnel Psychology*, *20*(4), 369–390. https://doi.org/10.1111/j.1744-6570.1967.tb02440.x

Hur, Y. (2018). Testing Herzberg's two-factor theory of motivation in the public sector: Is it applicable to public managers? *Public Organization Review*, *18*(3), 329–315. https://doi.org/10.1007/s11115-017-0379-1

Kooij, D., de Lange, A., Jansen, P., & Dikkers, J. (2008). Older workers' motivation to continue to work: Five meanings of age: A conceptual review. *Journal of Managerial Psychology*, *23*(4), 364–394. https://doi.org/10.1108/02683940810869015

Lawler, E. E. III. (1973). *Motivation in work organizations*. Brooks/Cole.

Lipsky, M. (1980). *Street-level bureaucracy: Dilemmas of the individual in public services*. Russell Sage Foundation.

Morrow, P. C., & McElroy, J. C. (1987). Work commitment and job satisfaction over three career stages. *Journal of Vocational Behavior*, *30*(3), 330–346. https://doi.org/10.1016/0001-8791(87)90009-1

Mowday, R. T., Porter, L. W., & Steers, R. M. (1982). *Employee organization linkages: The psychology of commitment, absenteeism, and turnover*. Academic.

Noe, R., Hollenback, J., Gerhart, B., & Wright, P. (2010). *Human resources management: Gaining a competitive advantage*. McGraw-Hill.

OECD. (2020). *Enterprises by Business Size (Indicator)*. https://doi.org/10.1787/31d5eeaf-en (Accessed on 21 July 2020).

Pinder, C. C. (1998). *Work motivation in organizational behavior*. Prentice-Hall.

Porter, L. W., Bigley, G. A., & Steers, R. M. (2003). *Motivation and work behavior* (7th ed.). McGraw-Hill/Irwin.

Powell, R. B., Stern, M. J., & Ardoin, N. (2006). A sustainable evaluation framework and its application. *Applied Environmental Education & Communication*, *5*(4), 231–241. https://doi.org/10.1080/15330150601059290

Riketta, M. (2002). Attitudinal organizational commitment and job performance: A meta-analysis. *Journal of Organizational Behavior*, *23*(3), 257–266. https://doi.org/10.1002/job.141

Robbins, S. P., & Judge, T. A. (2008). *Essential of organizational behavior*. Prentice-Hall.

Sanjeev, M. A., & Surya, A. V. (2016). Two factor theory of motivation and satisfaction: An empirical verification. *Annals of Data Science*, *3*(2), 155–173. https://doi.org/10.1007/s40745-016-0077-9

Smith-Sebasto, N. J. (2000). Potential guidelines for conducting and reporting environmental education research: Qualitative methods of inquiry. *Environmental Education Research*, 6(1), 9–26. https://doi.org/10.1080/135046200110458

Stein, M., & Christiansen, L. (2010). *Successful onboarding: A strategy to unlock hidden value within your organization*. McGraw Hill/Kaiser Associates, Inc.

Stern, M. J. (2018). *Social science theory for environmental sustainability: A practical guide*. Oxford University Press.

Stern, M. J., & Powell, R. B. (2013). What leads to better visitor outcomes in live interpretation? *Journal of Interpretation Research*, 18(2), 9–44. https://doi.org/10.1177/109258721301800202

Stern, M. J., Powell, R. B., & Hill, D. (2014). Environmental education program evaluation in the new millennium: What do we measure and what have we learned? *Environmental Education Research*, 20(5), 581–611. https://doi.org/10.1080/13504622.2013.838749

Theurer, C. P., Tumasjan, A., & Welpe, I. M. (2018). Contextual work design and employee innovative work behavior: When does autonomy matter? *Plos One*, 13(10), e0204089. https://doi.org/10.1371/journal.pone.0204089

Van den Broeck, A., Ferris, D. L., Chang, C.-H., & Rosen, C. C. (2016). A review of self-determination theory's basic psychological needs at work. *Journal of Management*, 42(5), 1195–1229. https://doi.org/10.1177/0149206316632058

Vroom, V. H. (1964). *Work and motivation*. Wiley.

Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity*. Cambridge University Press.

Wenger, E., McDermott, R. A., & Snyder, W. (2002). *Cultivating communities of practice: a guide to managing knowledge*. Harvard Business School Press.

Wilson, J. Q. (1989). *Bureaucracy: What government agencies do and why they do it*. Basic Books.

Appendices

Appendix A

Interview questions for EE Instructors

Environmental educator identity/value alignment

-What drew you to working as an environmental educator? How did you find yourself working at this organization?

-Tell me how you feel about your job and the impacts you are making in children

Autonomy

-Do you ever feel like you want to switch up how you teach lessons? Is this something that is encouraged in your work?

-How does your supervisor feel about switching things up? Do you think your supervisor appreciates your ideas?

Competence

-How often do you receive feedback about what you are doing?

-How do you feel about feedback? Is it positive and helpful? Does it hurt?

-Do you ever get opportunities to participate in professional development? Do you ever feel like you want to partake in similar opportunities?

Relatedness

-Do you like hanging out with your coworkers?

-Does your organization offer opportunities to socialize with your coworkers in a setting outside of work?

-Do you feel that you relate to your coworkers and supervisors? How?

Motivation

-What parts of your job motivate you the most?

-What about this job gets you excited to go to work every day?

Appendix B

Interview questions for EE Instructors

Instructor Autonomy

-Tell me about how much freedom the environmental educators have with teaching lessons. Do you have them develop what they are going to teach?
-Do you feel like the environmental educators like that freedom (or lack thereof)?

Instructor Feedback/Competence

-I'd like to hear about how employees get feedback here. Is it a formal process or more casual?
-How often do the environmental educators get feedback on their performance?

Group Dynamics/Employee Relatedness

-Would you mind telling me about the group dynamic here? How often do you interact with the environmental educators?
-Are the interactions generally formal or casual?
-Do you all hang out outside of work?
-Do you feel like the instructors enjoy working here? With each other?

Organizational Culture

-Do you do anything unique to build a particular sort of culture within your organization? If so, what?

Desired instructor characteristics

-Tell me about the hiring practices at this organization.

-What kinds of characteristics do you look for when you are hiring new employees?