

# Motivation and learning in the workplace

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## Introduction and Problem Statement

This report details the execution and findings of an action research inquiry into motivation and learning in the workplace. The facilitators, Jenna Iszler and Becca Argenbright, were fellow graduate students in *Research in Information & Learning Technologies (ILT)* between August and December 2015. This is a required course in the ILT Master of Arts program at the University of Colorado – Denver. A shared background in corporate training and a mutual interest in providing motivating learning experiences for employees brought us together to conduct this research.

## Purpose and Intended Audience

Our research aimed to examine the relationship between motivation and learning in a corporate setting, with an end goal of identifying tools and processes that foster the positive qualities of this relationship. We sought to uncover opportunities for improving employee learning practices in our workplaces based on these trends, as well as to propose ideas for further research in our larger communities of practice, which include colleagues from our organizations, academic settings, and social networks.

The primary audience for our study is comprised of fellow action researchers in the *Research in Information & Learning Technologies* course at University of Colorado – Denver, but our findings are also available to interested research participants from our organizations and colleagues within our networks. There is potential for a more widespread interest in our work beyond our immediate professional and academic circles, considering that “most everyone who works or plays with others is, accordingly, concerned with motivation, facing the question of how much motivation those others, or oneself, has for a task” (Ryan & Deci, 2000).

## Context of Study

Jenna represented Company A, a medical device manufacturer with approximately 80,000 employees worldwide. Her job responsibility before and throughout the research period was to provide operational support to a sales force of approximately 350 associates in the United States. She trained new sales representatives to create, deploy, track, and report on sales agreements with their customers' hospital facilities. Due to client account growth and a substantial increase in revenue generated by their contracts, Jenna's role expanded to include training specifically focused on fostering stronger customer relationships between sales representatives and their respective customers.

Becca represented Company B, a software-as-a-service provider with more than 75,600 employees worldwide. Her job responsibility before and throughout the research period was to evaluate her work group's training programs and define strategic design initiatives to meet the emergent needs of its learning audience, a global organization of approximately 370 employees with job responsibilities ranging from end-user support (functional and technical) to management. Within recent years, an increase in Company B's sales resulted in an increase in volume of customer inquiries for Becca's organization to handle, which necessitated an increase in hiring activity. Recently, learner feedback collected through regular course evaluations, mentor interactions, and manager requests have uncovered a lacking element for new hires. In course evaluations, qualitative feedback included statements like "it is boring" and "the content is dry". Meanwhile, mentors and training consultants reported that some learners chose not to complete practical assignments that accompany video-based course instruction. Beyond learner and mentor feedback, managers were also unsatisfied, often requesting more training options in addition to the existing course materials.

Although the scenarios for Companies A and B differed in detail, we agreed that it is important for both of our organizations to ensure an understanding of the tasks and factors that motivate employees, and how they might approach instructional design to foster positive aspects of the relationship between motivation and learning within their own training programs.

## Research Questions

Coghlan and Brannick (2014) argue, “Action research...begins with what we do not know and seeks to find out what we don’t know” (p. 73). In essence, action research prompts us to reflect on what is unknown about a given situation and pursue that “unknown” in an effort to uncover the yet-undiscovered issues and opportunities for improvement within a specific setting. With this quest for uncovering the unknown in mind, the following research questions drove our inquiry:

- **How do we define employee motivation, and what is its relationship to learning in the workplace?** This was a departure from the initial question: *How can we define employee engagement, motivation, and proactive learning culture, and what is the relationship between these concepts?* The impetus for this change was twofold: (1) it was a suggestion from our first round of peer reviews, and (2) as we began our literature review, our realization that engagement, proactive learning, and motivation are all vast topics in and of themselves validated the suggestion. It was not possible for us to focus on our initial question within the limits of our academic term. We needed to be broader with our inquiry (Stringer, 2014), so we turned our focus to developing an understanding of the relationship between motivation and learning in the workplace.
- **How is the relationship between motivation and learning manifested and perceived within our learning audiences?** In alignment with the questions included in our proposal, we initially planned to focus on the manifestation and perception of

engagement, motivation, and proactive learning culture within our organizations. As our first research question evolved, so did this one. Despite the change in focus, the fundamental goal remained the same. We aimed to understand the relationship between motivation and learning at a deeper level, specifically as it related to our own organizations, so that we could replicate the situational factors currently in place (or desired) that promote positive aspects of this relationship. A secondary goal was to identify opportunities for improvement through further investigation and intervention.

## **Literature review findings**

This section details the first phase of action in our inquiry: a review of prior research on the driving forces behind motivation, how motivation impacts learning, and the definitions and theories that might guide future phases of our research. During our review, we sought to answer two questions: *What theories of motivation and learning have been explored in prior research?* and *How are these theories commonly applied in a workplace learning setting?* In asking these questions, we aimed to address our first research question. This section presents our literature review findings as they relate to our literature review questions.

### **What theories of motivation and learning have been explored in prior research?**

Several motivational theories and a macro theory emerged: expectancy-value theory (Wigfield & Eccles, 2000); self-determination theory and its subtheories, cognitive evaluation theory, and organismic integration theory (Ryan & Deci, 2000a and 2000b; Gagné & Deci, 2005); and the ARCS Model (Keller, 1987, 2010; Keller & Suzuki, 2004).

#### **Expectancy-value theory (EVT)**

EVT is a long-standing perspective suggesting that one's ability-related beliefs and subjective task values predict performance and choice (Wigfield & Eccles, 2000). The theory was first developed in 1964 by Vroom as expectancy-valence theory (Gagné & Deci, 2005), and

it was later expanded by a number of subsequent researchers (De Simone, 2015). EVT proposes that the more valuable one views a task to be, combined with their expectations for their success with that task, determines their subsequent behavior related to the task (Keller, 1987; Hsieh, 2014). If there is a high value for the task, and an individual feels competent with it, they will be more likely to choose to do it and repeat it. In a training capacity, this would mean that if employees feel that a training program is valuable and that they will be successful with it, then they will be more likely to choose to complete it (assuming that it is optional).

### **Self-determination theory (SDT)**

SDT is a framework that represents humans' tendencies towards growth and self-motivation (detailed at length in the mid 1980s by Ryan and Deci), as well as the different conditions that encourage (or discourage) this behavior (Ryan & Deci, 2000b). SDT argues that there are various forms of motivation (*intrinsic* or *extrinsic*). SDT's notion of intrinsic and extrinsic motivation is grounded in Porter and Lawler's 1968 model of intrinsic or extrinsic work motivation, which itself was grounded in EVT (Gagné & Deci, 2005).

Intrinsic or "autonomous" motivation (Gagné & Deci, 2005, p. 334) refers to the idea of doing something because it is inherently pleasing (Ryan & Deci, 2000a). While humans are ingrained with intrinsic motivational tendencies, there are many factors which could undermine them. For example, Ryan & Deci (2000a) cite multiple studies showing that positive or negative feedback can enhance or discourage intrinsic motivation, and that other factors like rewards, threats, and deadlines can also discourage intrinsic motivation. Based on this idea, Ryan and Deci (2000b) describe SDT as a theory of motivation that also "examines the conditions that elicit and sustain, versus subdue and diminish, [the] innate propensity" (p. 70) for intrinsic motivation.

Extrinsic motivation relates to “the performance of an activity in order to attain some separable outcome” (Ryan & Deci, 2000b, p. 71). Rather than proposing an absolute polarization of intrinsic motivation as autonomous and extrinsic motivation as compulsory, SDT argues that extrinsic motivation varies “in the degree to which it is autonomous versus controlled” (Gagné & Deci, 2005, p. 334). Consider the graduate student who works diligently because she knows it will help her achieve her professional goals (not because she is deeply passionate about reading and writing research papers). Compare her to the employee who attends a training on information security because it is mandatory (not because he is genuinely interested in the proper encryption of sensitive data). SDT would argue that the former has “internalized” and “integrated” the value and regulation of the actions required. “Internalization” pertains to the question of whether or not an individual sees value in a task that is not intrinsically motivating, and “integration” deals with the question of whether or not an individual further adopts the task to the point that “it will emanate from their sense of self” (Ryan & Deci, 2000b, p. 71).

### **Cognitive evaluation theory (CET)**

Originally proposed in the late 1970s as a specific set of detractors to intrinsic motivation in terms of rewards, deadlines, surveillance, and evaluations (Gagné & Deci, 2005), Ryan and Deci posit CET as a subtheory of SDT that specifically deals with the variables that facilitate (or discourage) intrinsic motivation. CET asserts that “for a high level of intrinsic motivation people must experience satisfaction of the needs for both competence and autonomy” (2000a, p. 58). In other words, people are more likely to be intrinsically motivated to complete a task if doing so makes them feel accomplished and they are acting of their own volition.

While these are important findings about intrinsic motivation, initial attention on CET as a theory of work motivation declined in the years following its first exposure. Gagné and Deci

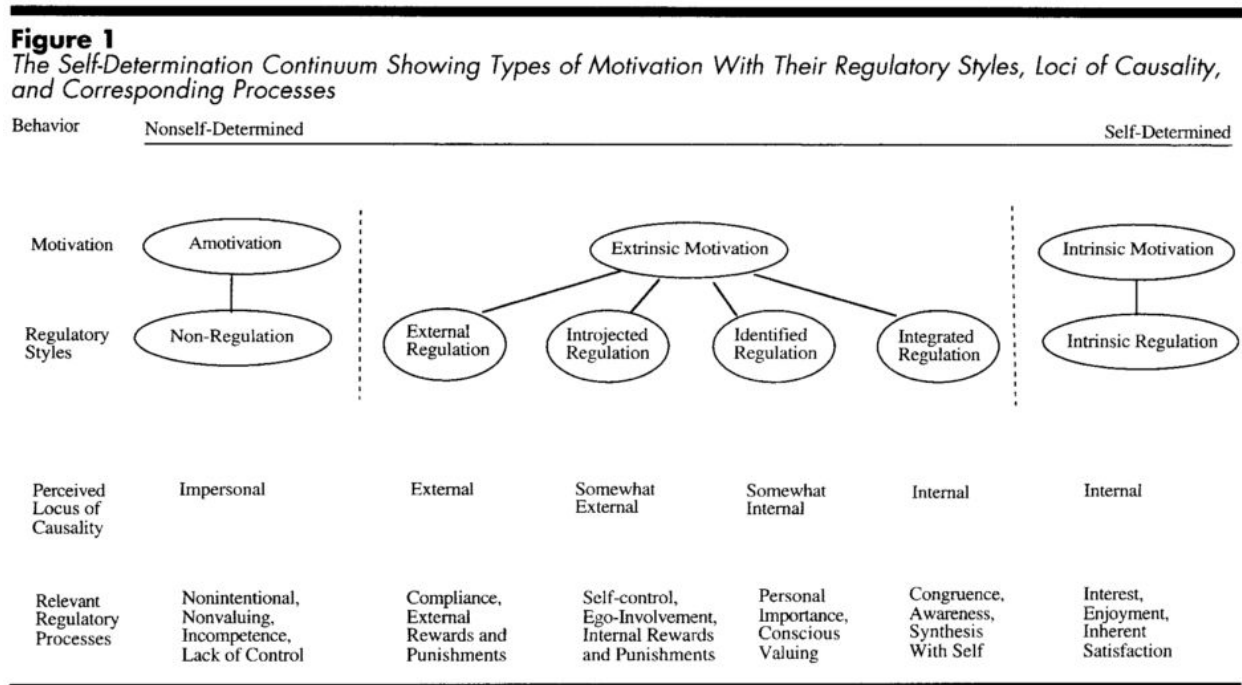


(2005) suggest that this is in part due to issues in CET experiment design, as well as the fact that “many activities in work organizations are not intrinsically interesting and the use of strategies such as participation to enhance intrinsic motivation is not always feasible” (p. 333). Because of this, “a central question concerns how to motivate students to value and self-regulate such activities, and without external pressure, to carry them out on their own” (Ryan & Deci, 2000a, p. 60). From a commercial standpoint rather than academic, we can view this as a question of how to foster employees’ internalization and integration of work tasks (such as mandatory training).

### **Organismic integration theory (OIT)**

OIT, a second subtheory of SDT, proposes differing levels of extrinsic motivation and situational factors (such as locus of causality) that promote or discourage one’s internalization and integration of a certain action (Ryan & Deci, 2000a). These levels range from “external regulation”—satisfying an external demand—to “integrated regulation”—assimilating with the actor’s needs and values (2000b, p. 72-73). Figure 1, below, presents the full OIT continuum as described by Ryan & Deci. It is important to note that this is not presented as a progressive model but rather as a spectrum (Ryan & Deci, 2000a).

**Figure 1:** The Self-Determination Continuum Showing Types of Motivation With their Regulatory Styles, Loci of Causality, and Corresponding Processes (Ryan & Deci, 2000b, p. 72)



**ARCS Model**

In an effort to synthesize multiple concepts of motivation into one model that would facilitate a methodical approach of designing instructional experiences to meet learners’ core motivational needs, Keller (1987) proposed the ARCS Model, a “macro theory of motivation and instructional design...grounded in EVT” (p. 2). ARCS originated as four categories of motivational design strategies (the first two stemming directly from the “value” aspect of EVT): interest (environmental factors that affect attention), relevance (relation to a specific goal),

expectancy (self-confidence and feelings of control, expectation for success), and outcome (reinforcement of learning and fostering conditions for prolonged motivation).

These four categories evolved into ARCS, which is an acronym for Attention, Relevance, Confidence, and Satisfaction. Keller (1987) argues that these are four categories of motivational strategies that must be present in instruction “for people to become and remain motivated” (p. 3). Figure 2, below, presents Table 3.1 (Keller, 2010, p. 45), which lists the ARCS Model categories, their definitions, and specific process questions that should be asked as part of a Motivational Design model that aims to incorporate each of the categories into the design of a learning experience.

**Figure 2:** ARCS Model Categories, Definitions, Process Questions (Keller, 2010, p. 45)

Table 3.1. ARCS Model Categories, Definitions, and Process Questions.

Major Categories and Definitions		Process Questions
Attention	Capturing the interest of learners; stimulating the curiosity to learn	How can I make this learning experience stimulating and interesting?
Relevance	Meeting the personal needs/ goals of the learner to effect a positive attitude	In what ways will this learning experience be valuable for my students?
Confidence	Helping the learners believe/ feel that they will succeed and control their success	How can I via instruction help the students succeed and allow them to control their success?
Satisfaction	Reinforcing accomplishment with rewards (internal and external)	What can I do to help the students feel good about their experience and desire to continue learning?

Keller (1987) also provides tables that list specific motivational design strategies to consider within each of the ARCS categories (p. 4-5), summarized as follows:

- **Attention strategies:** Introduce design elements such as incongruity or conflict, concreteness, variability, humor, inquiry, and participation.

- **Relevance strategies:** Incorporate elements that relate to learners' experience, the present value or future usefulness of the content, their developmental needs, the previous success of their colleagues, and that provide them with an element of personal choice.
- **Confidence strategies:** Enhance confidence by being clear with learning requirements, structuring activities with increasing levels of difficulty, being clear with expectations and goals, frame learner success in terms of effort rather than luck, and foster learners' self-confidence in an open, low-risk manner.
- **Satisfaction strategies:** Be sure to allow opportunities for natural application of learning in realistic settings, plan for unexpected rewards, celebrate positive outcomes and provide immediate feedback, avoid negative influences such as surveillance and threats as a means of prompting performance, and schedule reinforcement opportunities that taper off as learners become more competent with tasks.

Multiple sources indicate that the ARCS Model is relevant to the design of computer-based instruction (Keller, 1999; Alessi & Trollip, 2001; Keller & Suzuki, 2004). Keller (2010) argues that "many self-instructional programs can be greatly improved by giving systematic attention to the motivational characteristics of the lesson based on an application of the ARCS design process" (p. 311). When we considered our findings about the ARCS Model against the needs of our organizations, we felt it would benefit us to base subsequent phases of our research on ARCS.

### How are these theories commonly applied in a workplace learning setting?

Ample research exists on the topic of motivation and its link to learning in the workplace. Renta-Davids *et al.* (2014) indicate that the more motivated one is to complete an educational program, the more effective that program will be for them in terms of application and retention of

learning. Their findings validated our efforts as being worthwhile for our organizations. By seeking to improve the factors of our programs that may affect learner motivation, we might eventually see improvement in retention.

There were broad findings in terms of factors that can affect employee motivation. Canós-Darós (2013) lists 78 different factors based on her own review of relevant literature, “training/continuous education”, “values/beliefs”, “mastery confidence”, “caring of managers”, “recognition,” and “achievement” being among them (p. 817-819). Bhatti *et al.* (2013) suggest that receiving support from colleagues (supervisors and peers) increases employees’ motivation to apply new skills, and that intrinsic rewards can also aid in employees’ retention and successful application of those skills. De Simone’s (2015) study of healthcare workers suggests that most of the expectancy-value based factors affecting motivation depend on leadership capabilities and that leaders should try to increase “[beliefs] that employees are capable of performing the job successfully [and] that good performance will result in valued rewards [as well as] the expected value of rewards resulting from desired performance” (p. 21-22). While each of these studies placed emphasis on leadership action, Gagné and Deci (2005) placed emphasis on work environment. They propose that work environments that meet the three basic needs referenced in CET (autonomy, competence, and relatedness) will foster intrinsic motivation in employees as well as promote integration and internalization of extrinsic motivation. These findings on motivational theory’s application to learning in the workplace, though broad, provided us with a strong foundation from which to build our data collection tools, particularly in terms of our second research question.

### **Gap(s) in literature**

Considering the vast reach of motivation literature, our relative novelty with the subject on a professional level, and the limited time frame in which we conducted our literature review,

we were not equipped to identify gaps in literature. Rather, gaps remained in our understanding of these theories' application to our professional settings. Given the previous limitations, what important theories did we miss? Which motivational factors would be most important to our learners, and in what ways? What relevant examples of intrinsic and extrinsic motivation existed in our organizations? We aimed to answer these questions through our subsequent phases of data collection.

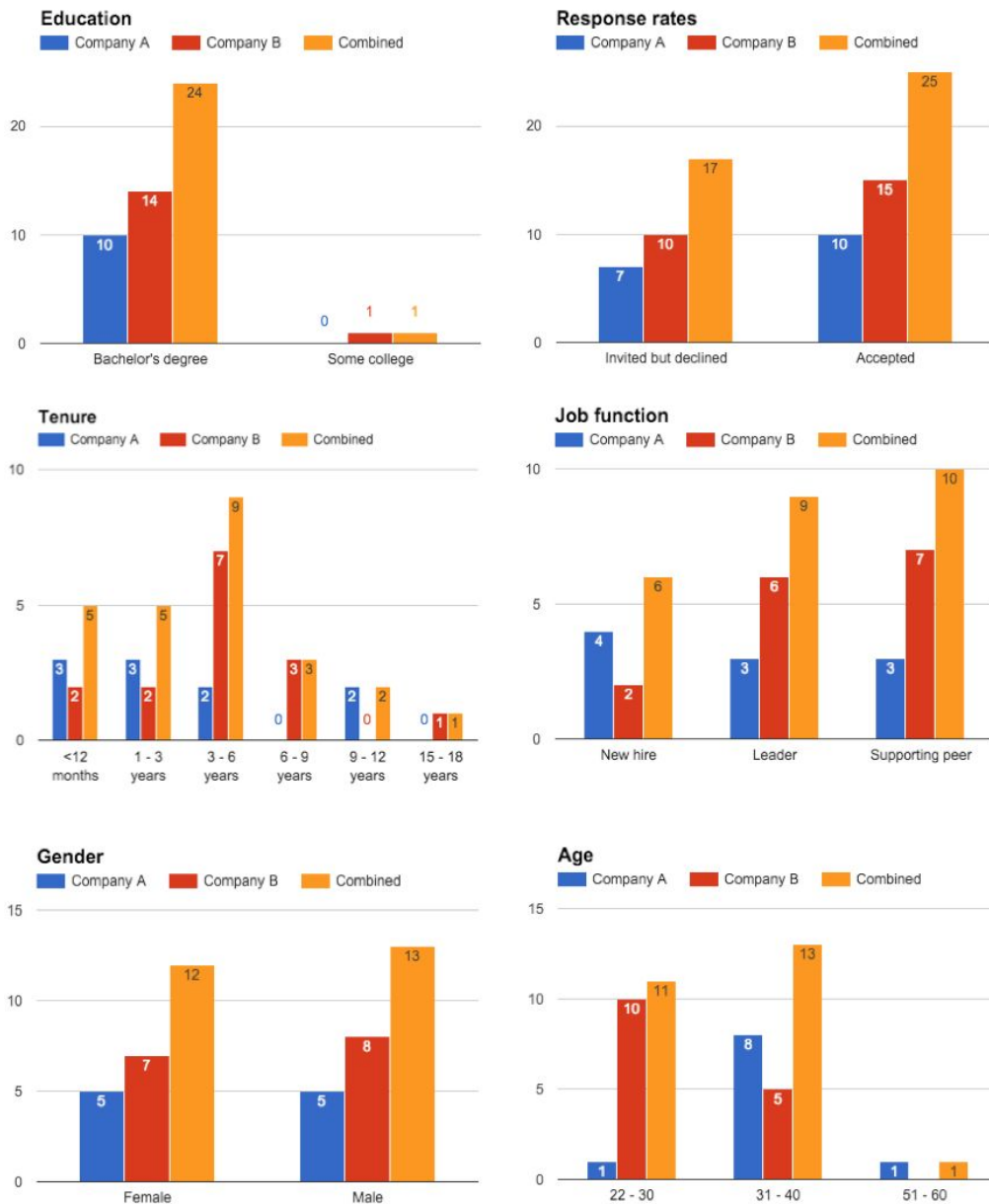
## **Methods**

This section describes our research settings, sample, questions and findings from the second and third phases of action in our inquiry: collection and analysis of qualitative and quantitative data about manifestations and perceptions of motivation (and its relationship with learning) in our organizations. It details our data collection and analysis methods, and it provides a brief discussion on the reliability and validity of our findings. Over time, certain aspects of our research execution varied from the original plan. These adjustments are acknowledged throughout the following sections.

### **Site selection and sampling**

We adopted the practice of purposeful sampling (Stringer, 2014) to identify our research participants based on specific attributes relevant to our inquiry and settings. The study sample spanned three levels of stakeholders: new hires, who are the most frequent and numerous consumers of training content; new hires' leaders, who are accountable for the new hires' success; and non-leadership employees who regularly interact with new hires. The employees were selected based on location and status as a recent hire, a manager of a recent hire, or an employee that interacts with or supports recent hires. Figure 3, below, provides a graphic representation of data about participant tenure, job function, response rate, age range, gender, and education level.

**Figure 3:** Research participant overview



**Data collection methods**

Table 1 shows primary and secondary sources of data we gathered to answer our research questions: literature review findings and the results of two phases of participant data collection. Phase 1 gathered qualitative data through a set of open-ended interview questions<sup>1</sup>,

<sup>1</sup> <http://goo.gl/forms/RakwUY67JX>

and Phase 2 gathered quantitative data through a survey<sup>2</sup>. The following subsections explain each phase of participant data collection in greater detail.

**Table 1: Research questions and data sources**

Research question	Primary source	Secondary source
How do we define motivation, and what is its relationship to learning in the workplace?	Literature review findings	Phase 1 findings
How is the relationship between motivation and learning manifested and perceived within our learning audiences?	Phase 1 findings	Phase 2 findings

### Phase 1: Qualitative data collection

Initially, we planned to conduct all Phase 1 data collection via onsite or virtual interviews that we would record and transcribe into a Google Form. After designing the questions and identifying participants, we decided to also offer the option to submit responses directly into the form. This decision came in part as an adaptation of Stringer's (2014) advice to allow participants to choose the setting for face-to-face interviews as a means of making participants feel "as if they can say what they are really thinking" (p. 105). Some of our potential participants truly may have felt more comfortable and candid with this format, especially considering that our invitation and statement of informed consent detailed our plans to record interview audio.

The decision was also a strategic effort to drum up participation. In Company A, targeted participants are sales representatives who cover regions across the United States. In Company B, many of the invited new hires are call center employees who must meet standards related to availability. It was unrealistic to rely on employees from either company to meet outside of working hours. By allowing for electronic responses, we maximized our potential to engage participants who otherwise may have been difficult to reach. Of the 25 participants, 23 (92%) opted to respond electronically; Jenna interviewed the remaining 2 via 30-minute onsite

<sup>2</sup> <http://goo.gl/forms/cFpIR7wJCV>



interviews. We acknowledge that as a result of our change in methods, we may have missed opportunities to ask *extension*, *encouragement*, or *example* questions (Stringer, 2014) to further our understanding of participants' responses on-the-spot. Table 2, on the following page, lists the Phase 1 questions, our reasoning for asking them, and their categorization for data analysis.

### **Phase 2: Quantitative data collection**

Phase 2 focused on our companies' learning programs. Following Table 2, Table 3 details the survey questions, their possible responses, and our reasoning for asking them. We designed these questions to gauge participants' perceptions of our organizations' learning programs with regard to the core elements of the ARCS Model of instructional design (Keller, 1987). The ARCS Model provides a framework for incorporating motivational objectives and strategies into instructional design. Keller argues that instructional strategies from each of the four ARCS categories (Attention, Relevance, Confidence, and Satisfaction) must be present in instruction in order to facilitate learners' motivation for completing it. We distributed the Phase 2 questions to all Phase 1 participants via a Google Form and received a 96% response rate.

### **Schedule**

We planned our activities based on the focus of our course cycles and deadlines for *Research in ILT*. Throughout the schedule there was a repeating cycle of Look-Think-Act (Stringer, 2014). Table 4 on page 18 provides a high-level schedule, with the week-ending date representing a targeted deadline for the corresponding research tasks and deliverables.

**Table 2: Phase 1 questions, reasoning, and analysis categories**

Question	Reasoning	Category
<b>Q1:</b> How do you think motivation affects work performance?	Gagné and Deci (2005) argue that enhanced motivation yields more effective learning and performance, among other outcomes. This question tells us how our participants view the relationship.	Perceptions about motivation and learning at work
<b>Q2:</b> What are the job-related tasks you genuinely enjoy performing? Why do you enjoy them?	This helps us understand the source (intrinsic/extrinsic) of employees' motivation for tasks they enjoy (Ryan & Deci, 2000a & 2000b).	Intrinsic and extrinsic motivation within our organizations
<b>Q3:</b> What are some tasks (job-related or otherwise) that you do not enjoy? Why do you perform them?	This helps us understand the internal or external nature of employees' extrinsic motivation for tasks they do not enjoy (Ryan & Deci, 2000a & 2000b).	
<b>Q4:</b> Describe a time when you were excited about a learning opportunity. What made it exciting?	Renta-Davids <i>et al.</i> (2014) indicate that motivation to learn something affects learning outcomes. This question identifies characteristics of historically motivating learning events.	Characteristics of motivating learning experiences
<b>Q5:</b> What makes you feel most competent / accomplished at work?	Cognitive evaluation theory (CET) argues that feelings of competence are critical for fostering intrinsic motivation (Ryan & Deci, 2000a). By asking participants to describe situations where they feel competent, we can explore ways to foster these feelings in our learning programs.	Intrinsic and extrinsic motivation within our organizations
<b>Q6:</b> What impact does your leader/manager have on your motivation at work?	Some argue that leadership is important to motivation (De Simone, 2014). This question tells us how our participants view management's impact on motivation.	Perceptions about motivation and learning at work
<b>Q7:</b> What is the most common concern you have (or have heard of) about our organization's training options?	This opens a dialogue about aspects of the organizations' learning programs to consider against literature and survey findings.	

**Table 3: Phase 2 Questions, Responses, and Reasoning**

Question		Potential Responses	Reasoning
<p><b>Q1:</b> Of the following, which is the most important to your success in a training program?</p>		I am interested in the training; it keeps my attention.	<p>Each response relates to one component of the ARCS Model (Keller, 1987).</p> <p>This tells us which ARCS component is most important to employees in our organizations.</p>
		I see a connection between the training and my daily life/work.	
		I feel confident that I can apply what I have learned.	
		I have opportunities to reinforce what I learned after the course is over.	
<p><b>Q2:</b> In general, the training I receive from my employer..</p>	<p><b>A:</b> is/was interesting and keeps/kept my attention.</p>	<p>5-point Likert scale of responses:</p> <ol style="list-style-type: none"> <li>1) Strongly disagree</li> <li>2) Disagree</li> <li>3) Neither agree nor disagree</li> <li>4) Agree</li> <li>5) Strongly agree</li> </ol>	<p>Each question relates to one component of the ARCS Model (Keller, 1987).</p> <p>The score for each question can be used to determine an average perception of the organizations' "success" with each component.</p>
	<p><b>R:</b> is/was relevant to my daily work.</p>		
	<p><b>C:</b> makes/made me feel confident about my ability to apply my new knowledge.</p>		
	<p><b>S:</b> is/was reinforced afterwards.</p>		

**Table 4: High-level task schedule**

Date	Tasks and deliverables
9/26	Begin literature review.
10/3 - 10/24	Conduct literature review and revise proposal as needed. Draft interview questions iteratively.
10/31	Finalize and submit Literature Review, evaluate design, finalize interview questions.
11/7	Conduct interviews, analyze findings, begin survey design.
11/14	Continue interview analysis and launch survey.
11/21	Gather and analyze survey data in comparison to interview findings.
11/28	Report on research findings in comparison to literature review.
12/5	Analyze research and prepare report with intended plan of action within each organization.
12/12	Submit Final Action Research Report.

## Data analysis methods

Our approach for analyzing qualitative data from Phase 1 was to code (Stringer, 2014) the participant responses as they related to the high-level categories that corresponded to our questions: intrinsic and extrinsic motivation within our organizations; characteristics of motivating learning experiences; and perceptions about motivation and learning at work. This approach allowed us to report on employees' perceptions of motivation and its relationship to learning in our organizations. For example, we coded Phase 1 Question 2 (*What are the job-related tasks you genuinely enjoy performing? Why do you enjoy them?*) on two dimensions: the specific tasks that employees enjoy and the source of their motivation. The first participant from Company B, a supporting staff member, provided the following response:

*"I enjoy **thinking strategically about how to solve a problem and brainstorming with others** on possible solutions. I also enjoy **engaging with our global team** as it relates to daily operations. I enjoy these tasks because I am motivated by new challenges, as well as by the culture at my company that allows for a lot of collaboration and flexible thinking."*

From this response, we broke out the following units of meaning for enjoyable tasks: *strategic problem solving, collaboration, brainstorming*. Each of these units corresponds to one of the boldface phrases from the quote above. We viewed this participant's motivation as intrinsic, specifically because she stated that she enjoys new challenges and she is clearly committed to the values of her organization (as indicated by the underlined text above). In total, there were 7 main motivational factors identified from responses to this question: autonomy; observation of others' success; positive feedback/acknowledgement; completion of a checklist; challenge/ problem- solving, personal satisfaction; inclusion.

We chose a 5-point Likert scale for analyzing most of our quantitative data from Phase 2, with the remaining analysis occurring on a percentage basis. This approach allowed us to

address a different aspect of our second research question: the manifestation of the relationship between motivation and learning within our organizations.

### **Checks for rigor**

We incorporated a number of checks for rigor into our research design in an effort to ensure credibility, transferability, dependability, and confirmability of our work (Stringer, 2014), including a “diverse case analysis” (p. 92) incorporating various stakeholder groups into our study to uncover and juxtapose their perspectives. For example, we gathered data from new hires, their leaders, and non-leader support staff. We can rely on metadata from Google Analytics gathered via our research tools to confirm that we engaged colleagues to participate. As each participant submitted their responses, a unique timestamp was generated within the Google Forms data collection tool.

### **Findings**

Our findings are organized as they relate to each phase of participant data collection and, where applicable, corresponding question categories.

#### **Phase 1**

Phase 1 data collection focused on three categories: intrinsic and extrinsic motivation within our organizations; characteristics of motivating learning experiences; and perceptions about motivation and learning at work. The following sections detail our findings relevant to these categories.

#### **Intrinsic and extrinsic motivation within our organizations**

Q2 asked participants to list tasks that they are intrinsically motivated to complete and explain what they find to be motivating about them. Multiple participants cited customer interaction, problem solving, and coaching as tasks they complete because they inherently

enjoy them. Specific motivators included intellectual challenge, developing rapport with colleagues or clients, and being able to observe others' success. Several participants cited autonomy as a motivator. For example, one employee in a support function for Company B explained, "I enjoy working on the tasks that I have some [vested] interest in, like a project/ idea I came up with/ had input on, or a task I was able to choose myself. Anything where I'm free to put my own spin to it."

Q3 asked participants to list the tasks that they are extrinsically motivated to complete and explain their reasoning for completing them. There can be significant differences in type of extrinsic motivation at play (Ryan & Deci, 2000a). 17 participants (68%) responded that tasks like administrative work, calendar or capacity planning, and unproductive meetings are completed because of external regulation, typically because they were concerned about job safety and/ or jeopardizing their position within the company. A leader from Company A stated, "Administrative work is always a burden and it seems that each year the admin works gets to be more and more. When I am home performing admin work, I am not out in front of my customers" A supporting employee from Company B stated, "I do not enjoy being "voluntold" for tasks because I have no buy-in to the conversation. I do them [to] not risk jeopardizing any future career opportunities within the organization." These responses depict extrinsically motivated characteristics for completing job tasks in both organizations.

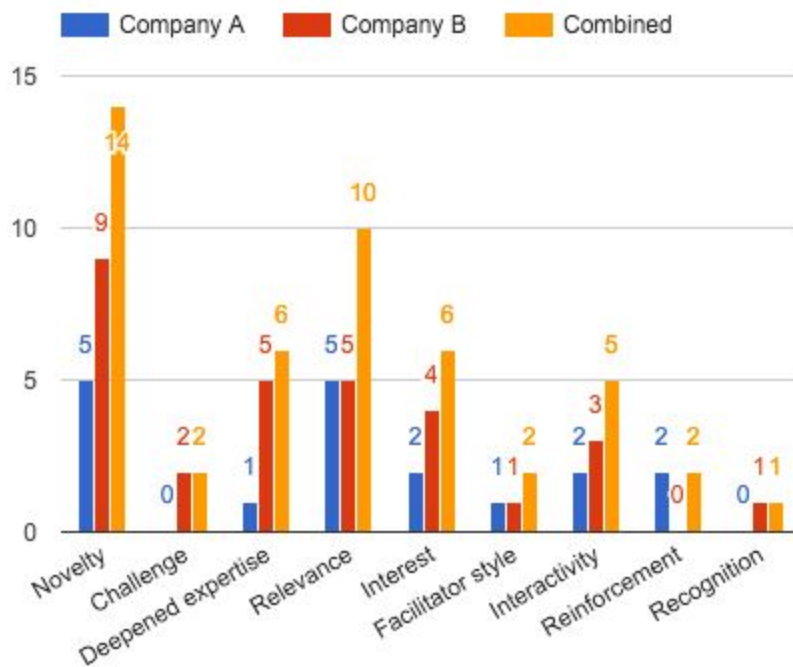
In response to Q5, participants indicated specific factors that lead to their feelings of competence and accomplishment. The most common response was *receiving positive feedback and acknowledgement* (28%). As stated by a new hire employee from Company B, "Honestly, it's recognition from the higher-ups. Anytime someone comes up to me and gives me a high five and acknowledges my work, I feel just incredible." This was followed by *observing the success of others after helping them* (20%), and *completion of goals or checklists* (16%). The remaining

results were split between a few categories: *autonomy or ownership of ideas being implemented, independently solving a complex problem, and being included in important decisions or projects.*

**Characteristics of motivating learning experiences**

Q4 asked participants to describe a learning experience that they found to be motivating in the past. We feel it is important to introduce aspects of these examples into future learning programs in order to tap into existing motivators in our respective organizations. Many participants cited multiple aspects that made each experience motivating. Figure 4, below, demonstrates the most prominent characteristics of motivating learning experiences among participants from both organizations. Across all participants, *Novelty* was the most common characteristic, followed by *Relevance*, *Deepened expertise* and *Interest*, and *Interactivity*. It is notable that *Deepened expertise* is a more common characteristic among Company B's participants as it is among Company A's. This could be for any number of reasons, including job design, tenure, or age.

**Figure 4:** Characteristics of motivating learning experiences



### Perceptions about motivation and learning at work

In response to Q1, participants generally agreed that motivation has a significant impact on work performance. The majority (76%) asserted that employees who are self-motivated (intrinsically or extrinsically via internalization and integration) tend to exceed their employers' expectations. Many responses included statements similar to this one (as stated by a new hire from Company A): "Either caring about the work...or caring about the outcome of the work...causes me to be more willing to 'go the extra mile'. Otherwise, it is too easy to just do the bare minimum and move on." An important implication comes from a supporting employee at Company B, when referring to being asked to complete a task that he does not believe to be of value: "If the ask is presented in a different way I may feel differently." This suggests that the extent to which an employee has internalized and integrated an extrinsically motivating task can be influenced by the way in which that task assignment is communicated.

Phase 1 Q6 asked participants to consider the impact that their leader or manager has on their motivation at work. The responses ranged from managers having a significant impact on motivation to having no impact at all. For example, a support role employee from Company A responded, "My manager has a huge impact on my motivation to do well. I would say they are a driving factor in my performance." However, a Company B employee in the same role responded, "None. My motivation needs to come from me." In total, 7 participants (28%, including Company B Participant 13) reported that they are self-motivated. Despite that, nearly all participants (96%) cited specific managerial actions that they perceive as directly affecting employee motivation. Our findings indicate that the most prevalent ways in which managers can affect motivation are: by regularly providing positive and constructive feedback; by recognizing, rewarding, or otherwise acknowledging employee contributions; and by displaying confidence in employees. We found it noteworthy that one participant (a new hire from Company A) included



the following statement regarding recognition: “Seeing financial rewards to non-performing employees can decrease motivation for others!” While more research should be done to investigate the motivational (or demotivational) effects of rewards that non-recipients perceived to be misappropriated, this is a helpful reminder that recognition should be genuine and should likely not be used as a means to an end.

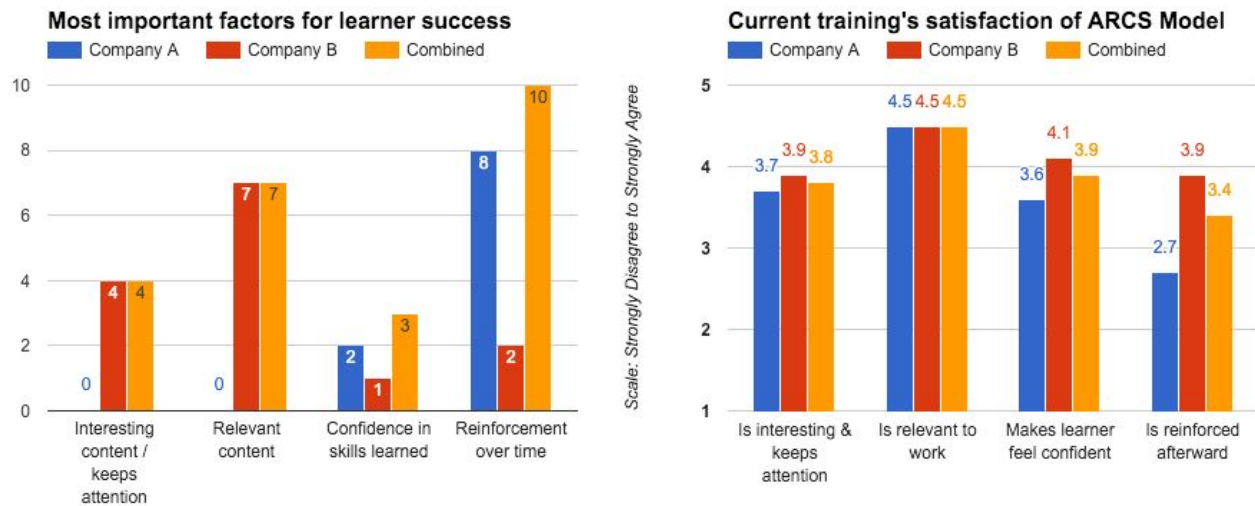
Q7 asked participants to list their concerns or perceived issues with regard to training options in Companies A and B. This question presented the clearest distinction in qualitative responses between the companies. The most prevalent combined response (40%) was that there is a lack of relevance or context. A new hire from Company B stated that entry-level employees felt that “they know just enough to understand how little they actually have learned” due to a lack of context in the training materials. A new hire from Company A added, “In a perfect world, I could pull up a quick step by step when I’m walking into the hospital...At your fingertips type info”. Beyond statement about relevance, 16% of participants cited a lack of availability or options, 12% cited a lack of reinforcement, 12% cited a lack of engagement, and 12% cited an over-reliance on self-paced training. When considering this within individual organizations, however, it is worth noting that 7 of 10 participants citing relevance as an issue are employed by Company B.

## **Phase 2: Measuring manifestation and perception of ARCS components**

Figure 5, below, reports on participant responses to Phase 2 Questions 1 and 2, which asked participants to identify which ARCS component they felt was most important to their learning success and to indicate the degree to which they agreed or disagree with statements about their existing training options’ satisfaction of ARCS criteria. For Company A, *Reinforcement* (corresponding to *Satisfaction*) was most important to learner success; meanwhile for Company B *Relevance* was most important.

Phase 2 Q2 provided insight into the relationship of the ARCS components to how learning is perceived within Company A & B; with the results summarized in Figure 5. Participants from both organizations generally agreed that their training options met *Attention*, *Relevance*, and *Confidence* components, but there was a discrepancy around *Satisfaction*, which was noticeably lower for Company A. Also of note is that participants from both organizations agreed or strongly agreed that their company’s training was relevant to their work. This is contradictory to findings from Phase 1 Q7, where “relevance” was the most commonly cited training concern, particularly among Company B participants.

**Figure 5:** Phase 2 response overview



**Comparison of research to the literature review**

When comparing the findings of the data collected by both Phase 1 and Phase 2 of our research, it is apparent there are several similarities between our results and the literature reviewed previously in this action research project. Findings from Bhatti *et al.* (2013) suggest that receiving support from colleagues (supervisors and peers) increases employees’ motivation to apply new skills, and that intrinsic rewards can also aid in employees’ retention and

successful application of those skills. This was consistent with findings from Phase 1, where many participants cited their managers as a key influence on their motivation.

We identified a notable link between motivation and effective learning in the workplace, corresponding with findings from Renta-Davids et al. (2014). Based on our findings we identified the motivational theories on intrinsic and extrinsic motivation are prevalent in both Company A and B, most notably found when 76% of employees were intrinsically motivated to perform at work and 68% were extrinsically motivated to complete tasks because it was part of their role.

When comparing the second part of our literature review regarding how these motivational theories are commonly applied in a workplace learning setting, we identified a notable link between motivation design strategies and learning. Keller (1987) argues that the four categories of the ACRS design for of motivational strategies must be present in instruction “for people to become and remain motivated” (p. 3). This literature review finding aligns with results of Phase 2 data collection as 41.7% of employees in both Company A and B felt *Satisfaction* of having training reinforced following the course is the most important factor in a successful training program. However, Phase 2 Q2S, reveals that 29.1% of participants do not feel training is successfully reinforced by their organization. This finding presents an opportunity for further analysis and action.

By comparing our data collection results of Phase 1 and Phase 2 against our literature review findings, we are able to better understand the relationship between motivation and learning in a corporate setting. In doing so, we have identified tools and processes we can incorporate in training programs to better foster motivation in our workplaces.

## Limitations

There are a number of limitations that should be considered in conjunction with our findings. One significant limitation is that we were unable to coordinate a round of member-checking after analyzing our Phase 1 results (Stringer, 2014) due to time constraints. Sample size and composition is also a limitation. While we serve nearly 400 employees in their daily work, we only engaged 25 across both organizations. Further, although the primary learning audience in Company B is international, the sampling was limited to employees in one domestic office—a global study may yield different results. Finally, only 40% of our participants were tenured at 3 years or less. 20% of participants were new hires, the primary learning audience. Future research efforts should include a larger percentage of new hires in order to more accurately evaluate training programs, since these are the employees who will have completed training most recently.

Beyond these limitations, closer attention to question design may have yielded different results. For example, Gagné and Deci (2005) discuss motivation's impact on performance and learning, but our first Phase 1 question only asked for qualitative input on the relationship between motivation and performance. Despite this, we feel that our findings are relevant to learning in addition to performance, given the inherent need for learning in order to satisfy job requirements. Other Phase 1 questions asked specifically about job-related tasks. While these questions and results pertain more to job design than instructional design, they can still impact future action resulting from our study. For example, our Phase 2 findings uncovered a deficit relating to reinforcement of learning within our organizations' programs. Future efforts to develop or update training might consider incorporating some of the intrinsically motivating tasks listed in response to Phase 1 Q2 (and avoiding tasks from Phase 1 Q3) into structured training reinforcement efforts.

## Implications for Practice

Through this research project, we identified the potential for gaining insight into the driving factors behind employee engagement, motivation and proactive learning cultures and how they positively impact work environments. We were able to uncover and define specifics surrounding the importance of any of these areas of inquiry, in an effort to assist employees and management with enhancing their individual success and contributions in the workplace. The value of the findings from our research has the potential to impact both organizations, strengthen the training provided to employees and even raise the standards of instruction to include the models and theories presented in our research.

Phase 1 revealed that receiving positive feedback or acknowledgement is the most common action that results in employees' feelings of competence, and that novelty and relevance of content are among the most common characteristics of motivating learning experiences. Phase 1 also uncovered that Company A and B employees perceive motivation as a key driver of performance and that manager action can have a significant impact on employee motivation. Additional findings indicate that Companies A and B ought to investigate how relevant training content is for employees, as relevance was the most commonly cited concern for organizational learning programs.

Phase 2 data revealed reinforcement of learning as the ARCS component perceived to be most important by participants. It showed an initial trend towards reinforcement of learning being an area of deficit within both organizations, certainly an implication for additional research and corrective action.

Based on our findings, there is a potential negative impact in that we uncovered current practices contradictory to the practices suggested by our research. Because both authors work in close relation to the participants in the participant groups, feelings of negativity or frustration

may arise. These outcomes necessitate further investigation into both the current practice and the impact of changing processes based on current operations. In addition, our research confirmed and aligns to the findings from participant data collection, reiterating the need to improve reinforcement following training as well as ensure the training itself is relevant to the audiences it is provided to.

## **Conclusion**

This research was valuable to both of our organizations and can benefit any company dealing with similar issues and concerns about workplace motivation and the need to increase the quality of training to better meet employee needs. Our report details the design and execution of two phases of participant data collection in Companies A and B. Phase 1 gathered qualitative data from participants to tap into employee perceptions and the manifestation of motivation in our workplaces. Through this practice, we uncovered specific tasks that employees are intrinsically or extrinsically motivated to complete, as well as the internal or external nature of extrinsic motivation for the tasks employees complete but do not enjoy. Tasks that challenge employees' intellect, allow them to build rapport with colleagues or clients, or to observe the success of others that they assist are among the most favorable in our organizations. It is essential to our organizations that they listen to and provide employees with the tools they need to perform well and be successful members of the business. Through our research, we feel we've revealed specific practices and methods that organizations can use to do so.

## References

- Alessi, S.M. & Trollip, S.P. *Multimedia for learning: Methods and development*. Boston, MA: Allyn and Bacon.
- Awais Bhatti, M., Mohamed Battour, M., Pandiyan Kaliani Sundram, V., & Aini Othman, A. (2013). Transfer of training: does it truly happen? An examination of support, instrumentality, retention and learner readiness on the transfer motivation and transfer of training. *European Journal of Training and Development*, 37(3), 273-297.
- Canós-Darós, L. (2013). An algorithm to identify the most motivated employees. *Management Decision*. 51(4), 813-823.
- Coghlan, D., & Brannick, T. (2014). *Doing action research in your own organization*. Sage.
- Colquitt, A., LePine, A., Noe, A. (2000). Toward an Integrative Theory of Training Motivation: A meta-analytic path analysis of 20 years of research. *Journal of Applied Psychology*, 85(5), 678-707.
- De Simone, S. (2015). Expectancy value theory: Motivating healthcare workers. *American International Journal of Contemporary Research*, 5(2), 19-23.
- Gagné, M., & Deci, E.L. (2005). Self-determination theory and work motivation. *Journal of Organizational Behavior*, 26(4), 331-362.
- Green, M. (2011). *The 2011 state of the industry report*. Alexandria, VA: ASTD Press.
- Hsieh, T.L. (2014). Motivation matters? The relationship among different types of learning motivation, engagement behaviors and learning outcomes of undergraduate students in Taiwan. *Higher Education*, 68(3), 417-433.
- Jones, A.R. (2013). Increasing Adult Learner Motivation for Completing Self-Directed E-Learning. *Performance Improvement*, 52(7), 32-42.
- Keller, J. M. (1987). Development and use of the ARCS model of instructional design. *Journal of Instructional Development*, 10(3), 2-10.
- Keller, J.M. (2010). *Motivational design for learning and performance: The ARCS model approach*. Springer Science and Business Media.
- Renta-Davids, A., Jiménez-González, J., Fandos-Garrido, M., González-Soto, Á. (2014). Transfer of learning. *European Journal of training and Development*, 38(8), 728-744.

Ryan, R.M., & Deci, E.L. (2000a). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology*, 25(1), 54-67.

Ryan, R. M., & Deci, E.L. (2000b). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68-78.

Stringer, E. (2014). Action research (4th edition). Thousand Oaks, California: Sage Publications.

Wigfield, A., & Eccles, J.S. (2000). Expectancy–value theory of achievement motivation. *Contemporary Educational Psychology*, 25(1), 68-81.