**Contemporary Issues in Education Research – First Quarter 2017** 

Volume 10, Number 1

# A Foundation For Understanding Knowledge Sharing: Organizational Culture, Informal Workplace Learning, Performance Support, And Knowledge Management

Shirley J. Caruso, Northeastern Illinois University, USA

### ABSTRACT

This paper serves as an exploration into some of the ways in which organizations can promote, capture, share, and manage the valuable knowledge of their employees. The problem is that employees typically do not share valuable information, skills, or expertise with other employees or with the entire organization. The author uses research as well as her graduate studies in the field of Human Resource Development (HRD) and professional career experiences as an instructor and training and development consultant to make a correlation between the informal workplace learning experiences that exist in the workplace and the need to promote, capture, and support them so they can be shared throughout the organization. This process, referred to as knowledge sharing, is the exchange of information, skills, or expertise among employees of an organization that forms a valuable intangible asset and is dependent upon an organization culture that includes knowledge sharing, especially the sharing of the knowledge and skills that are acquired through informal workplace learning; performance support to promote informal workplace learning; and knowledge management to transform valuable informal workplace learning into knowledge that is promoted, captured, and shared throughout the organization.

Keywords: Knowledge Sharing; Organizational Culture; Informal Workplace Learning; Performance Support; Knowledge Management

## **INTRODUCTION**

ncovering ways to promote, capture, share, and manage the valuable knowledge of employees in the workplace is important to practitioners in the field of human resource development as well as to organizations. Gilley, Eggland, and Gilley (2002) define human resource development (HRD) as a field that "facilitates organizational learning, performance, and change through organized interventions, initiatives and management actions for the purpose of enhancing an organization's performance capacity, capability, competitive readiness, and renewal" (pp. 6-7). To prove their value to organizations, HRD professionals must discover and adopt processes and procedures to increase workforce productivity and organizational competitiveness and profitability. These processes and procedures include promoting, capturing, sharing, and managing the information, skills, or expertise lying within employees of an organization. Organizations are realizing that the valuable knowledge residing in their employees is important in creating economic power and value, and if this knowledge is not shared, the organization stands to lose its competitive edge (Huselid, Jackson, & Schuler, 1997). Competitiveness cannot be achieved without managing performance and at the same time developing the skills and competence of employees (Adhikari, 2010).

Performance management potentially makes the most significant contribution to individual and organizational learning and helps to raise organizational efficiency and promote growth (Adhikari, 2010). An effective human resources strategy can have a significant impact on issues such as organizational development and homogenization, acquisition of competitive skills and abilities, cultural and role changes, career development, decrease of tensions and insecurities, commitment and reduced conflict in the workplace and creative

Copyright by author(s); <u>CC-BY</u>

employment (Lingg, 1996). To improve performance at the organizational level, it is essential to create a culture and situation of continuous learning of employees and of the organization (van der Sluis, 2007).

This paper identifies a foundation for understanding knowledge sharing to benefit both HRD practitioners and organizations. The foundation includes four areas of particular importance of knowledge sharing research which will be discussed: organizational culture, informal workplace learning, performance support, and knowledge management. The tools that people can utilize to enhance knowledge sharing throughout the organization, especially emerging technologies such as Web 2.0 tools that make creating and sharing multimedia content simple, will also be identified and discussed.

# ORGANIZATIONAL CULTURE, INFORMAL WORKPLACE LEARNING, PERFORMANCE SUPPORT, AND KNOWLEDGE MANAGEMENT

# **Defining Organizational Culture**

There are countless definitions of organizational culture, but perhaps the most commonly known definition is "the way we do things around here" (Lundy & Cowling, 1996). According to Grossman (2015), a learning culture consists of a community of workers instilled with a "growth mindset." People not only want to learn and apply what they've learned to help their organization, they also feel compelled to share their knowledge with others (Grossman, 2015). Generally speaking, organizational culture is the "set theory" of important values, beliefs, and understandings that members share in common; culture provides better (or the best) ways of thinking, feeling, and reacting that could help managers make decisions and arrange activities of the organization (Sun, 2008).

In the past few decades, the concept of organizational culture has gained wide acceptance as a way to understand human systems (Rai, 2011). It has been studied from a variety of perspectives ranging from disciplines such as anthropology and sociology, to the applied disciplines of organizational behavior, management science and organizational commitment (Naicker, 2008). Schein (1985) defined organizational culture as a set of learned responses where "basic assumptions and beliefs that are shared by members of an organization [...] [and] defined in a basic 'taken-for-granted' fashion an organization's view of itself and its environment" (pp. 5-6). Cohen (1993) viewed organizational cultures as complex combinations of formal and informal systems, processes, and interactions. Formal organizational culture components include leadership, structure, policies, reward systems, socialization mechanisms, decision-making processes, etc. (Rai, 2011). Informal organizational culture components include implicit behavioral norms, values, role models, organizational myths and rituals, organizational beliefs, historical anecdotes, and language (Cohen, 1993; Dion, 1996; Frederick, 1995; Schein, 2004; Trevino, 1990; Trevino & Brown, 2004).

The contemporary definition of organizational culture includes what is valued, the dominant leadership style, the language and symbols, the procedures and routines, and the definitions of success that characterizes an organization (Cameron & Quinn, 1999; Schein, 1992; as cited in Berrio, 2003). The concept of culture seems to lend itself to very different uses such as collectively shared forms of ideas and cognition; symbols and meanings; values and ideologies; rules and norms; emotions and expressiveness; the collective unconscious; behavior patterns; and structures and practices (Alvesson, 2002).

Several scholars have developed integrative frameworks of organizational culture (Allaire & Firsirotu, 1984; Alvesson, 2002; Schein, 1985, 1992; as cited in Zhou-Sivunen, 2005; Hatch, 1993), but there is hardly any consensus with regard to a general theory of organizational culture (Alvesson, 1987; Ashforth, 1985; Smircich, 1983: Zhou-Siyunen, 2005). One of the most recent and elegant frameworks of organizational culture is envisaged by Alvesson (2002), who drew upon the range of relevant literature within organization studies, synthesized it and identified eight metaphors - exchange regulator, compass, social glue, sacred cow, affect regulator, disorder, blinders, world-closure - of organizational culture. Although the eight metaphors do not represent a comprehensive list of ways of using the metaphor of culture, they cover many of the most common modes of thinking culturally (Alvesson, 2002).

# Contemporary Issues in Education Research – First Quarter 2017

A successful organization should have strong cultures that can attract, hold, and reward people for performing roles and achieving goals, whereas strong cultures are usually characterized by dedication and cooperation in the service of common values (Sun, 2008). These cultures include knowledge sharing, especially the sharing of the knowledge and skills that are acquired through workplace learning. This paper places its focus on informal workplace learning and its recognition by organizations as one of the four areas of particular importance in the promotion of knowledge sharing.

## Informal Workplace Learning

Workplace learning, which stems from the field of educational research focuses on the improvement of conditions and practices of learning and instruction in work settings (Engestrom & Kerosuo, 2007). Workplace learning can often be categorized as formal learning and informal learning (Watkins, 1995). Formal learning is institutionally sponsored learning and informal learning is any learning that takes place outside of a classroom (including online courses) setting (Berg & Chyung, 2008).

Informal learning is so prevalent that it is embedded into the day-to-day work activities of employees and often takes place subconsciously. Research by Merriam, Caffarella, and Baumgartner (2007) established the following:

Studies of informal learning, especially those asking about adults' self-directed learning projects, reveal that upwards of 90 percent of adults are engaged in hundreds of hours of informal learning. It has also been estimated that the great majority (upwards of 70 percent) of learning in the workplace is informal, although billions of dollars each year are spent by business and industry on formal training programs. (pp. 35-36).

# Recoginition of Self-Directed Workplace Learning

Because studies suggest that adults' self-directed learning projects contribute to the majority of informal learning experiences, it is essential that self-directed learning is recognizable by organizations, especially human resource development professionals. In its broadest meaning, self-directed learning describes, according to Knowles (1975), a "process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes" (p. 18). Schugurensky (2000) defined self-directed learning as follows:

Self-directed learning refers to "learning projects" undertaken by individuals (alone or as part of a group) without the assistance of an "educator" (teacher, instructor, facilitator), but it can include the presence of a 'resource person' who does not regard herself or himself as an educator. It is both intentional and conscious. It is intentional because the individual has the purpose of learning something even before the learning process begins, and it is conscious, in the sense that the individual is aware that she or he has learned something. (p. 3)

Self-directed learning becomes even more powerful when the learner uses a systematic approach to determine what areas of knowledge and skills are needed in order to accomplish a task (learning needs and goals), how the areas of knowledge and skills will be acquired (learning objectives and activities), and how the learner will know that skill or knowledge sought has been acquired (learning evaluation) (Caruso, 2009). Tough (1979) suggested that self-directed learning is

a series of related episodes, adding up to at least seven hours. In each episode, more than half of the person's total motivation is to gain and retain certain fairly clear knowledge and skills, or to produce some other lasting change in himself. (p. 7).

Despite its prevalence, as suggested by Beamish (2007), "informal learning often receives less attention because it is thought of as an intangible form of learning" (p. 65). Most organizations look for learning to happen in formal training situations and overlook the learning that is taking place while individuals perform their daily work tasks. In

order for an organization to implement support of the informal learning exchanges of its employees, informal learning must be recognizable.

## Recognition of Incidental Workplace Learning and Tacit Knowledge

Although self-directed learning accounts for the majority of informal learning taking place in the workplace, two other types of informal workplace learning, incidental and tacit, also exist. Incidental learning is unintentional or unplanned. In the workplace, incidental learning is the result of performing other activities or tasks. Incidental learning is acquired through observation, by engaging in conversation, or by watching or talking to colleagues about tasks. Incidental learning is a surprise or byproduct of another activity. The learner discovers something while in the process of performing or learning another task. Schugurensky (2000) defined incidental learning as follows:

Incidental learning refers to learning experiences that occur when the learner did not have any previous intention of learning something out of that experience, but after the experience she or he becomes aware that some learning has taken place. Thus, it is unintentional but conscious. (p. 4)

While we learn formally in some very specific situations and periods of our lives, incidental and informal learning are responsible for the skills and knowledge we have learned during the vast majority of our lives (Beamish, 2007). Tacit knowledge is knowledge that we may be unaware that we have. It is embedded in our day-to-day work activities. We tend to take tacit knowledge for granted. It is rather implicit. Schugurensky (2000) defined tacit knowledge as follows:

Tacit knowledge refers to the internalization of values, attitudes, behaviors, skills, etc. that occur during everyday life. Not only do we have no prior intention of acquiring them, but we are not aware that we learned something. (p. 4)

Tacit learning involves knowing how to do something rather than knowing who, what, or why. It involves learning and skill, but not in a way that can be easily written down.

### Knowledge Sharing and Informal Workplace Learning

It has well been established that knowledge is equated with power. Employees are not excluded from this equation. Employees often feel they are giving away power if they give away or share their knowledge, especially knowledge and skills obtained from self-directed learning projects. In general, employees are reluctant to share the knowledge and skills they have obtained from informal workplace learning experiences because of job security. They often do not share because they feel their job is secure as long as the knowledge and skills resides only within them. This act of reluctance to share knowledge and skills through the organization is referred to as knowledge hoarding. Employees also tend to hoard their time, don't ask others to share insights and don't trust those who ask them (Michael, 2003). Performance support and knowledge management can help curb the effects of knowledge hoarding and cultivate an organizational culture of knowledge sharing.

## **Performance Support**

The nature of informal learning has promoted researchers to study factors that influence informal learning in the workplace (Li, Brake, Champion, Fuller, Gabel, & Hatcher-Busch (2009). A review of current literature discovered that recent studies focused mainly on factors related to the individual learner, the context of the organization, or both (Li et al., 2007). Berg and Chyung (2008) discovered that interest in the current field (of the individual learner) and computer access (of learning support system) were the top two factors affecting employee engagement in informal learning. In a study on teachers' engagement in informal learning, Lohman (2006) suggested that to promote informal learning in the workplace, organizations should design employees' work areas and schedules to allow opportunity and time for collegial integration and sharing. In addition, they should ensure that employees have access to adequate computer technology and the Internet, which would enable access to needed information in a timely manner. The importance of sufficient support was stressed by Eraut (2004) because it would increase one's commitment and confidence in learning. Management support and an organizational culture that is committed to

### **Copyright by author(s); CC-BY**

learning are important in creating organizational factors that positively influence informal learning (Ellinger, 2005; Eraut, 2004).

The challenge in supporting informal workplace learning is to develop content rapidly, make it highly accessible and integrate it into the workflow (Caruso, 2009). The first step in meeting this challenge is recognizing that employees are a main source of creativity and organizational improvement (Caruso, 2009). Designing, developing, and implementing performance support for informal learning produces a medium that enhances workplace performance (Caruso, 2009). Cross (2006) suggests that we "think of a worker as the sum of employee and support systems, combining the strengths of each into a whole greater than the sum of the parts" (p. 8). Research by Nijhof and Nieuwenhuis (2008) suggests the following:

Studying the learning potential of the workplace is investigating the interaction of conditions to promote learning at work. The learning potential of the workplace may therefore be defined as the power of a work setting to integrate learning at work with the result of behavioral changes and the generation of new knowledge. Such a workplace offers accessible information, opportunities to learn and real support by peers and managers. (p. 7)

Giving equal value to informal workplace learning implies that it is transformed into components of teaching to enable its integration into a blended learning site (Caruso, 2009). Most organizations rely on employees who possess the knowledge necessary to perform at an optimal level to teach others (Caruso, 2009). However, these optimal performers are not always the best teachers. The implication is that HRD professionals must adopt methods of extracting individual knowledge into content and then deliver it so that it can be drawn upon by the entire organization (Caruso, 2009). Too often organizations restrict the use of the Internet and even mobile devices because they are seen as time wasters or time stealing. A manager who catches a glimpse of an online chat in progress as he passes by the cubicle of an employee can instantly turn an organization against the use of mobile devices or access to the Internet for anything other than official business. But what if that online chat was offering performance support to the employee? What if the employee engaged in the chat to learn – albeit informally – a software function needed to complete a job task? Web 2.0 technologies, social media, and mobile devices have reinvented workplace learning options. Today, employees don't need to enroll in formal training to become a subject-matter expert on a particular topic or skill. On the contrary, any person with access to the Internet is connected to more information in an instant than ever before imagined.

# **Emerging Technologies**

So why shouldn't organizations and their HRD professionals capitalize on this opportunity to use Web 2.0 technologies to develop content rapidly and make it highly accessible and integrate it into the workflow? Access to computer technology and the Internet will equip employees with the tools they need to gain workplace knowledge while HRD professionals utilize these same devices to create learning vehicles to share the knowledge captured. Computer technology together with Web 2.0 tools available, often free of charge, from the Internet can be used to achieve particular organizational goals: to create and share content, to increase organizational communication, and to create participatory, collaborative learning activities. A webcam, for example, can be used to record personalized announcements, send personalized video emails, and allow the HRD professional to connect with employees and each other via synchronous web conferencing and communication tools like Skype, VoiceThread, and Google+ Hangouts. Today, many laptops are equipped with webcams, but most desktop PCs (personal computers) require the connection of a separate webcam via a USB (Universal Serial Bus) connection. Screencasting is another important Web 2.0 technology essential to a learning organization's toolbox.

# What is Screencasting?

According to Carr and Ly (2009), screencasting is a method of capturing the actions performed on a computer, including mouse movements and clicks on web browser links, in the form of a video. A screencast is a video recording of your computer's screen (Pacansky-Brock, 2013). The uses of screencasting in creating content rapidly and making it highly accessible throughout the organization are endless. With screencasting acting as performance support, the HRD professional can create how-to videos, lectures, or even an orientation or tour of a new software

# Copyright by author(s); <u>CC-BY</u>

# Contemporary Issues in Education Research – First Quarter 2017

program (or a new Web 2.0 tool being introduced by the organization) that provide rapid and effective visual representations. Using online screencasting tools, the video can be shared via e-mail attachment or a web link, or be uploaded to a server for continual use (Carr & Ly, 2009). Screencasts may also contain audio narration which is recorded simultaneously while the actions are performed on screen or added after the video is completed (Carr & Ly, 2009). Additionally, still images of the computer screen, or "screen shots," may include captions, highlighting or call-out boxes to draw the user's eye to a specific place on the image (Carr & Ly, 2009).

Today, if organizations do not already have access to a premium screencasting tool (like Camtasia or Screenflow), a free, browser-based tool that gives direct access to creating a screencast with a single click is Screencast-o-matic. Screencast-o-matic (www.screencast-o-matic.com) provides screencasting software with no download or account creation necessary (Steiner, 2010). One need only click the Create button on the Screencast-o-matic homepage to begin a screencast (Steiner, 2010). Within the recording screen, users can select a default recording size (including three high-definition (HD) options ideal for YouTube) or drag the frame to create a customized recording size and set microphone options (including no audio) (Steiner, 2010). Once recording starts, the user can drag the frame around to different areas of the screen if needed (Steiner, 2010). During recording one can also pause, truncate or record over sections, and restart as needed (Steiner, 2010).

Upon completing a recording, Screencast-o-matic provides a variety of options. Users can upload their screencast to Screencast-o-matic.com and provide a title and description (Steiner, 2010). Uploads default to being searchable. To use the function, users do need to create an account, which only requires providing an e-mail and a password. Users can also upload directly to YouTube or export into MP4, WMV, or AVI format. Once users indicate that they are finished with a recording, it is no longer possible to make changes, and the only way to add captions/annotations is to create notes that appear at certain times during the recording prior to uploading or exporting. Screencast-o-matic uses a Java applet and is compatible with all major operating systems and browsers (Steiner, 2010). Recording time is limited to 15 min for uploads and exports and 10 min for YouTube (Steiner, 2010). For organizations that need a screencasting option that does not require any downloading and provides relatively customized results with an adequate amount of recording time, Screencast-o-matic is a solid option.

# **Knowledge Management**

For HRD professionals and learning organizations, knowledge management (KM) strives to enable the easy and systematic creation of explicit knowledge and facilitate its dissemination so that it is commonly known. It seeks to create opportunities for collaboration that bring informal workplace learning to the surface, where it has value. Reiser and Dempsey (2012) suggest "knowledge management is the creation, archiving, and sharing of valued information, expertise and insight within and across communities of people and organizations with similar interests and needs, the goal of which is to build competitive advantage" (p. 159). Simply put, knowledge management is extracting knowledge and skills from employees who have it to employees who need it.

Modern knowledge management would be an impossible feat without the Internet. Today, there are more than 100 million videos on YouTube, 13 million articles on Wikipedia, and more than 200 million blogs on almost any topic (Reiser & Dempsey, 2012). For HRD professionals and learning organizations, this means that learning has become more social than ever with employees learning from each other. Informal, workplace collaboration and learning using Web 2.0 tools is now an essential component of instructional solutions. There is no doubt that simpler training solutions, based on simpler Web 2.0 tools and strategies, have a great impact on workplace learning. The role of the HRD professional will grow to include teaching organizations how to make the best use of emerging Web 2.0 tools, even as the actual use of these tools becomes more employee-driven.

The significance of knowledge creation and management was highlighted by Nonaka (1991) when he noted, "Successful companies are those that consistently create new knowledge, disseminate it widely throughout the organization and quickly embody it in new technologies and products (p. 162). Hosting content online can empower employees to access the performance support they need from anywhere, share it easily without emailing large attachments, and engage in virtual collaboration projects. A free YouTube account can provide a free hosting resource for video content, especially screencasts that have been uploaded to YouTube, and a channel that can be used to curate video playlists around focused instructional topics.

### Copyright by author(s); <u>CC-BY</u>

An organization equipped with a webcam, screencasting software, and a YouTube account is an organization that holds the tools to transform valuable informal workplace learning into knowledge that is promoted, captured, and shared throughout the organization.

#### CONCLUSION

The results of this research indicate organizations are realizing that the knowledge residing in their human capital (employees) is important in creating economic power and value. Employees acquire ideas, skills and knowledge on the job, often through informal learning experiences, and it is this knowledge that makes a company competitive. Organizations must be able to identify and understand some of the tools that people can utilize to enhance knowledge sharing throughout the organization. Emerging technologies such as Web 2.0 tools that make creating and sharing multimedia content simple are notable new tools for knowledge sharing. Rather than controlling knowledge sharing, some organizations are attempting to facilitate its growth by creating knowledge sharing events, such as employee trade shows and open forums to encourage employees to share knowledge with each other. But before implementing knowledge sharing practices or new collaboration tools, organizations must have a good understanding of the organizational culture and its readiness to share.

Organizations are focusing on workforce productivity and are beginning to increase their focus on human resource development, a win-win situation for the employer as well as the employee (Caruso, 2009). Organizations are realizing that the knowledge residing in their human capital is important in creating economic power and value. Knowledge is power, and today's human resource development professionals have a major responsibility in leveraging the power of that knowledge to achieve the organization's goals.

# **AUTHOR BIOGRAPHY**

**Shirley J. Caruso**, Ed.D. is an instructor and undergraduate advisor in the Human Resource Development (HRD) Program at Northeastern Illinois University, Chicago, Illinois, and a training and development consultant in the Chicago area. She puts HRD theories into practice by supporting the learning goals of students, focusing on student learning outcomes, developing talented employees to help clients achieve real competitive advantages, designing and delivering highly effective training and development programs that enable participants to enhance their individual performance, and working in collaboration with faculty to promote educational innovation and the improvement of student learning. E-mail: s-caruso@neiu.edu

#### REFERENCES

- Adhikari, D. R. (2010). Human resource development (HRD) for performance management. *International Journal of Productivity and Performance Management*, *59*(4), 306-324. doi:http://dx.doi.org/10.1108/17410401011038883.
- Allaire, Y., & Firsirotu, M.E. (1984). Theories of organizational culture. Organization Studies, 5(3), 193-226.
- Alvesson, M. (1987). Organization, culture and ideology. *International Studies of Management and Organizations*, 17(3), 4-18. Alvesson, M. (2002). *Understanding organizational culture*. London: Sage.
- Ashforth, B. E. (1985). Climate formation: Issues and extensions. Academy of Management Review, 10(4), 837-47.
- Beamish, A. (2007). Learning from work: Designing organizations for learning and communication. Palo Alto: Stanford University Press.
- Berg, S.A., & Chyung, S. Y. (2008). Factors that influence informal learning in the workplace. *Journal of Workplace Learning*, 20(4), 229-44.
- Berrio, A.A. (2003). An organizational culture assessment using the competing values framework: A profile of Ohio State university extension. *Journal of Extension*, *41*(2). Retrieved from www.joe.org/joe/2003april/a3.php.

Cameron, K. S., & Quinn, R.E. (1999). Diagonising and changing organizational culture. Reading, MA: Addison-Wesley.

- Carr, A., & Ly, P. (2009). "More than words": Screencasting as a reference tool. *Reference Services Review*, 37(4), 408-420. doi:http://dx.doi.org/10.1108/00907320911007010.
- Caruso, S. (2009, October 21-23). Integrating Informal Workplace Learning into the Workflow through the Development of Performance Support Tools. Proceedings for the Midwest Research-to-Practice Conference, Northeastern Illinois University, Chicago, Illinois.
- Cohen, D. (1993). Creating and maintaining ethical work climates: Anomie in the workplace and implications for managing change. *Business Ethics Quarterly*, *3*, 343-58.
- Cross, J. (2006). Informal learning: Rediscovering the natural pathways that inspire innovation and performance. San

## Copyright by author(s); <u>CC-BY</u>

<u>The Clute Institute</u>

Francisco: Pfeiffer.

Dion, M. (1996). Organizational culture as matrix of corporate ethics. *International Journal of Organizational Analysis*, *4*, 329-51.

- Ellinger, A.D. (2005). Contextual factors influencing informal learning in a workplace setting: The case of 'reinventing itself company'. *Human Resource Development Quarterly*, *16*(3), 389-415.
- Engestrom, Y., & Kerosuo, H. (2007). From workplace learning to inter-organizational learning and back: The contribution of activity theory. *Journal of Workplace Learning*, 19(6), 336-42.
- Eraut, M. (2004). Informal learning in the workplace. Studies in Continuing Education, 26(2), 247-73.
- Frederick, W.C. (1995). Values, nature, and culture in the American corporation. New York, NY: Oxford University Press.
- Gilley, J., Eggland, S., & Gilley, A., M. (2002). Principles of human resournce development (2<sup>nd</sup> ed.). New York, NY: Basic Books.
- Grossman, R. J. (2015). A culture of learning. *HRMagazine*, 60(4), 36-40,42. Retrieved from http://search.proquest.com/docview/1679859856?accountid=158450.
- Hatch, M.J. (1993). The dynamics of organizational culture. Academy of Management Review, 18(4), 657-93.
- Huselid, M.A., Jackson, S.E., & Schuler, R. (1997). Technical and strategic human resource effectiveness as determinants of firm performance. *Academy of Management Journal*, 40(1), 171-88.
- Knowles, M. S. (1975). Self-directed learning: A guide for learners and teachers. Englewood Cliffs: Prentice Hall/Cambridge.
- Li, J., Brake, G., Champion, A., Fuller, T., Gabel, S., & Hatcher-Busch, L. (2009). Workplace learning: The roles of knowledge accessibility and management. *Journal of Workplace Learning*, 21(4), 347-364. doi:http://dx.doi.org/10.1108/13665620910954238.
- Lingg, M.A. (1996). Training for job-skill confidence. Journal of Career Development, 22(4), 261-71.
- Lohman, M.C. (2006). Factors influencing teachers' engagement in informal learning activities. *Journal of Workplace Learning*, 18(3), 141-56.
- Lundy, O., & Cowling, A. (1996). Strategic Human Resource Management. London: Thompson.
- Merriam, S. B., Caffarella, R. S., & Baumgartner, L. M. (2007). *Learning in adulthood: A comprehensive guide* (3rd ed.). San Francisco: Jossey-Bass.
- Michael, S. (2003). Knowledge hoarding. *Federal Computer Week*, 17(12), 24-25. Retrieved from http://search.proquest.com/docview/218860686?accountid=158450.
- Naicker, N. (2008). Organizational culture and employee commitment: a case study. Retrieved from http://ir.dut.ac.za/bitstream/handle/10321/475/Naicker 2008.pdf?sequence=1.
- Nijhof, W., & Nieuwenhuis, L. (2008). The learning potential of the workplace. The Netherlands: Sense Publishers.
- Nonaka, I. (1991). The knowledge-creating company. Harvard Business Review, 69(6), 96-104.
- Pacansky-Brock, M. (2013). Best practices for teaching with emerging technologies. New York, NY: Routledge.
- Rai, R. K. (2011). Knowledge management and organizational culture: A theoretical integrative framework. *Journal of Knowledge Management*, 15(5), 779-801. doi:http://dx.doi.org/10.1108/1367327111174320.
- Schugurensky, D. (2000). The forms of informal learning: Towards a conceptualization of the field. (WALL Working Paper No. 19). Toronto: Centre for the Study of Education and Work, Department of Sociology and Equity Studies in Education & Ontario Institute for Studies in Education of the University of Toronto Retrieved from https://tspace.library.utoronto.ca/bitstream/1807/2733/2/19formsofinformal.pdf.
- Schein, E.H. (1985). Organizational culture and leadership. San Francisco, CA: Jossey-Bass.
- Schein, E.H. (2004). Organizational culture and leadership (3rd ed.). San Francisco, CA: Jossey-Bass.
- Smircich, L. (1983). Concepts of culture and organizational analysis. Administrative Science Quarterly, 28(3), 339-58.
- Siniferi, E. (1985). Concepts of current and organizational analysis. Auministrative Science Quarterly, 20(5), 535-58.
- Steiner, H. M. (2010). Livening virtual reference with screencasting and screen sharing. *Library Hi Tech News*, 27(4), 9-11. doi:http://dx.doi.org/10.1108/07419051011083172.
- Sun, S. (December 2008) Vol. 3, No. 12 Organizational Culture and Its Themes. International Journal of Business and Management.
- Tough, A. (1979). *The adult's learning projects: A fresh approach to theory and practice in adult learning.* Toronto: Ontario Institute for Studies in Education.
- Trevino, L. (1990). A cultural perspective on changing organizational ethics, in Woodman, R. and Passmore, W. (Eds), Research in Organizational Change and Development. Greenwich, CT: JAI Press.
- Trevino, L., & Brown, M. (2004). Managing to be ethical: debunking five business ethics myths. *Academy* of Management Executive, 18, 69-83.
- van der Sluis, L.E.C. (2007). Umbrella for research into human resource development (HRD). *Human Resource Development International*, 10(1), 99-106.
- Watkins, K.E. (1995). Workplace learning: changing times, changing practices, in Franklin Spikes, W. (Ed.), Workplace Learning: New Directions in Adult and Continuing Education. San Francisco, CA: Jossey-Bass.
- Zhou-Sivunen, P. (2005). Organizational culture impact in ERP implementation in China. Retrieved from www.pafis.shh.fi/graduates/peizho03.pdf.