# E-Learning for Professional Development: Preferences in Learning Method and Recency Effect

**Alysa D. Lambert**
**Indiana University Southeast**

**Regina Yanson**
**Francis Marion University**

*This paper examined employee preference in learning modality for professional development. Using Media Richness Theory, preferences for different learning modalities, including traditional and e-learning options were explored. Results demonstrate employees prefer traditional face-to-face learning over all forms of e-learning. However, findings demonstrate a recency effect for learning methods so employees who have experienced e-learning methods (synchronous or asynchronous) prefer that method over other methods.*

## INTRODUCTION

Many employees appreciate professional development opportunities provided by their organization, and often consider these to be a valued portion of their benefits package. Likewise, employers frequently view professional development as an important investment in the organization's human resources. Investments in employee learning and development may be perceived as a token of gratitude and signal a sense of commitment to current employees. However, most employers also believe professional development is important in order to maintain or improve organizational competitiveness. Given the popularity of professional development programs, it is not surprising that professional development is big business. According to the Association for Talent Development (2013), U.S. companies spent $164.2 billion, or $1,195 per employee, on learning and development initiatives in 2012. While 61 percent ($100.2 billion) of the learning and development dollars were spent internally, the remaining 39 percent was spent on external services (28 percent), and tuition reimbursements (11 percent). A growing portion of those learning and development dollars are being allocated to e-learning initiatives. This is highlighted by the recent partnership between Starbucks and Arizona State University, which serves to help provide an affordable college education for thousands of Starbucks employees online (US News and World Reports).

E-learning is defined as any developmental practice that is delivered over the Internet or some other electronic media source (Atkinson, Howells, Reilly, & Ross, 2012). According to Docebo (2014*),* the self-paced e-learning market alone is projected to grow 7.6 percent globally, and sales revenues are expected to reach $51.5 billion by 2016. However, the growing use of e-learning is not without complications. Research by Chartered Institute for Personnel and Development (CIPD) suggests that

approximately three quarters of organizations are using e-learning, but only 15 percent consider it to be one of the more effective learning practices at their disposal. Many organizations perceive e-learning to be helpful, however they do not consider it to be an acceptable substitute for face-to-face or traditional classroom learning (CIPD, 2013). A major complaint against the use of e-learning is that many employees opt not to take advantage of e-learning opportunities, and have a greater tendency to not complete the online courses once they have enrolled (CIPD 2011). This is a potentially a problem for organizations because it may indicate that both employees and employers may not value e-learning professional development opportunities as much as traditional methods. As a result, employee appreciation for professional development opportunities may diminish as employers continue to transition towards providing more professional development opportunities through e-learning methods. It is important that we develop a better understanding of employee e-learning preferences. Therefore, the purpose of this study is to use media richness theory (MRT) (Daft & Lengel, 1984) to investigate learning preferences of working professionals, which e-learning methods they find most beneficial and how recent e-learning experiences impact perceived learning effectiveness.

## LITERATURE REVIEW

### *MEDIA RICHNESS THEORY & TRADITIONAL LEARNING*

Daft and Lengel's MRT (1984) can help to explain the preference for traditional face-to-face learning and blended learning over online courses where no instructor is present. The theory suggests that the richness of the chosen communication media will influence the level of shared meaning and understanding. According to the theory, the level of media richness includes four criteria: feedback, multiple cues, language variety and personal focus (Daft, Lengel & Trevino, 1987). The capacity for immediate feedback focuses on how quickly answers to questions occur and improvements can be made. Multiple cues relate to the capacity to transmit cues such as voice inflection, body language, or even numbers and symbols. Language variety refers to amount of meaning that can be expressed. For example, numbers and symbols provide precise value, whereas, natural language can be used to communicate a broader range of thoughts and opinions. The last criteria, personal focus, is the ability of the medium to adapt to the needs of the receiver. Messages have more meaning when they include emotions or a frame of reference that can be personalized to the needs of the individual. For example, if the training is for police officers then having examples that relate to incidents they manage every day, such as traffic violations, will help the learner to better understand the concept being discussed.

Some research using MRT, has found the majority of managers prefer face-to face communication when ambiguity is high but written forms when ambiguity is low (Daft & Lengel, 1987). Logically, it makes sense that when a decision is clear or simple facts need to be communicated then written communication such as email or text would be sufficient. However, when the path is uncertain or more complex and no clear answer appears then richer communication channels such as phone calls or face-to-face meetings would be necessary to examine the issue from multiple perspectives. Daft and Lengel (1987) also found evidence that managers who were more sensitive to appropriate communication channels were more likely to be rated as high performers. One explanation for this result may be higher-performing managers know how to communicate more effectively using the appropriate amount of richness based on the complexity of the information being communicated.

Kraut, Galegher, Fish and Chalfonte (1992) took MRT one step further and assessed whether or not using richer media during ambiguous tasks resulted in better performance. Their data supported the theory in that richer media did lead to higher performance during more ambiguous tasks. Kahai and Cooper (2003) also found support that richer media increased message clarity and this improved clarity led to a significant increase in the quality of decisions made. Based on the data presented above, media richness is an important issue with the potential to significantly impact performance. So how does the issue of media richness translate to the preferences in professional development opportunities? Do employees prefer richer learning methods (e.g. traditional) versus leaner models of communication (e.g. e-learning)? This study investigates these questions further.

*E-LEARNING*

There has been an abundance of research in e-learning in recent years. Given the interdisciplinary nature of e-learning, research on this issue has covered a wide variety of topics. There is evidence to suggest people tend to prefer traditional learning (e.g. face-to-face) over e-learning. This may be due to traditional learning methods having a richer line of communication between the instructor and the learner. According to MRT, traditional learning would provide the opportunity for immediate feedback as well as non-verbal cues and the instructor can change their language immediately based on the needs of the learner. For instance, an instructor presenting a concept that the learners do not understand can immediately give another example that may make the point clearer. Where as in an online learning situation the instructor may not be readily available to clarify things the learner does not understand. Several research studies have focused on comparing online courses to blended learning courses and/or face to face courses (Campbell & Swift, 2006; Dowling, Godfrey & Gyles, 2003; Perreault, Waldman, Alexander & Zhao, 2008). Findings suggest online courses result in lower levels of student satisfaction and perceived learning, but little to no difference in actual learning or course grades (Abraham, 2001; Bernard et al., 2004; Borthick & Jones, 2000; Delana, Collins, & West, 2000; Eom, Wen & Ashill, 2006; Lam, 2009; Lane & Porch, 2002; Machtmes & Asher 2000). Levy (2007) discussed the low participation rates associated with e-learning, particularly voluntary e-learning. This type of learning, in many cases, is a solitary activity (DeRouin, Fritzsche, & Salas, 2004) and may result in more frustration, anxiety and confusion on the part of the learner (Zhang, Zhao, Zhou & Nunamaker, 2004). This may be particularly relevant to professional development initiatives because in many cases the training is voluntary. Thus, when the individual's frustration, etc. grows there is no motivation to complete the course since it is voluntary. Another explanation for this is the lack of perceived accountability in online courses. In online courses, the instructor is not there every day to hold the learner accountable for their work. These studies align with MRT and its main tenet that richer channels of communication may lead to higher levels of student participation, satisfaction and perceived learning. Because of this, we hypothesized the following:

Hypothesis 1: Participants will prefer traditional learning over e-learning.

*TYPES OF E-LEARNING*

Even though research indicates a preference for traditional learning over e-learning there is a significant trend towards e-learning as discussed above. Consequently, there is a need to better understand how to maintain the advantages of e-learning (e.g. cost-effectiveness, flexibility, unlimited access to knowledge) while minimizing the disadvantages (e.g. lack of immediate feedback, cohort interaction) (Zhang et al., 2004).

While the term "e-learning" is commonly used, it is actually used to describe several different types of e-learning designs. The most commonly used e-learning methods are asynchronous, synchronous, and blended learning. All of which have different strengths and weaknesses. Asynchronous learning (AL) provides online instruction at any time, from any location, however the facilitator is not accessible in real time (Rovai, 2002). AL offers the greatest amount of flexibility regarding time and place. Research on AL indicates a high degree of satisfaction with the flexibility mentioned above (Arbaugh, 2000). However, a lack of social interaction and delayed feedback in AL can contribute to reports of increased challenges to the learning process (Vonderwell, 2003). Synchronous learning (SL), however, refers to e-learning where an instructor is present in real-time (Park & Bonk, 2007). This method provides less flexibility but the opportunity for real-time interaction and feedback from the instructor. There is evidence to support that SL methods provide a richer opportunity for communication which lead to greater understanding of concepts. One study reported, participants preferred SL to AL because "they were able to receive more information from seeing, hearing, and communicating with peers and instructors at the same time rather than passively sitting and reading from computer screen" (Park & Bonk, 2007, 251).

Another way organizations are trying to do merge the advantages of AL and SL is through blended learning. Blended learning is defined by Bluic, Goodyear and Ellis (2007) as "learning activities that involve a systematic combination of co-present (face-to-face) interactions and technologically-mediated interactions between students, teachers and learning resources" (234). Many organizations have indicated

that they have a preference for this method rather than offering online only courses (Brown, Murphy & Wade, 2006). The flexibility of blended learning is virtually unlimited. Blended learning can be utilized for a variety of reasons, and the "blending" can occur at different levels: activity level, course level, program level, or institutional level (Bluic et al., 2007).

*RECENCY EFFECTS*

Although the benefits of e-learning are numerous (e.g. cost-effectiveness, high accessibility) (Bonk & Graham, 2006), researchers have found that this method of learning is not the most preferred method (Mowbray & Dick, 2003). Aside from a potential lack of media richness, one reason for this may be a lack of understanding on the part of the learner of the potential benefits of e-learning (Dick, 2005). Teng, Bonk, and Kim, (2009) suggested a major challenge impacting the success of e-learning is the employees' lack of exposure to it and a failure to understand what it is. Recency effect is the impact more recent information has on an individual's perceptions (Morgeson & Campion, 1997). According to research on this effect, individuals remember more recent experiences better or those experiences can have more impact than situations further in the past (Jones & Sieck, 2003). Specifically, Jones, Love and Maddox (2006) discuss a decisional recency effect which occurs when individuals weigh "recent information more heavily, which produces a tendency to choose responses or actions that have recently been reinforced" (316). Additionally, marketing research suggests a recency effect impacts consumers' advertisement preferences (Chiou, Wan & Lee, 2008). In order to increase employee exposure to different e-learning methods, organizations may need to champion this type of learning to their employees. One way to do this may be to expose individuals to e-learning methods and give them an avenue to explore the potential benefits for themselves. Due to the potential for recency effect, we postulate the following:

Hypothesis 2: More recent exposure to the three main e-learning methods (asynchronous, synchronous, and blended learning) will be positively related to perceived benefit of the method.

## METHODS

In order to investigate e-learning preferences, secondary data was utilized. The data was generously provided by the American Society of Association Executives Foundation (ASAE), which was part of a larger study focusing on the topic of "decisions to learn". The questionnaire (N = 7848) was completed in 2009 and 2010 by individuals who participated in one of several professional education associations affiliated with the ASAE Foundation.

## MEASURES

*DEMOGRAPHICS.*

Gender, age, and education level were included in this study. Gender asked respondents to select (1) Male or (2) Female. Age was measured by asking "what year were you born?" The level of education was measured by asking "what is the highest level of education you have achieved up to now?" (1) Less than a Bachelor's degree, (2) Bachelor's degree, (3) Master's degree, (4) Higher than Master's degree.

*TRADTIONAL LEARNING PREFERENCES.*

Participants were asked to indicate their preferences with a five point Likert-type scale ranging from "not a benefit" (1) to "very beneficial" (5) on three items. The resulting Chronbach's alpha was .72. Traditional learning was defined by the ASAE survey as, "Learning that takes place in person, led by an instructor or presenter (not at a conference, trade show or convention)." An example of an item in this measure was, "Employer provided, led by consultant: Professional education by your employer, facilitated by an outside consultant or trainer."

*E-LEARNING PREFERENCES.*

E-learning preferences were measured using a four item scale. Participants were asked to indicate their preference for different forms of professional development with a five point Likert-type scale

ranging from "not a benefit" (1) to "very beneficial" (5). The resulting Chronbach's alpha was .81. The options were as follows:

1. *Asynchronous Learning:* E- learning, with an instructor/presenter but at your own pace.
2. *Synchronous Learning:* E- learning, with an instructor/presenter in real time.
3. *Blended Learning:* Blended e- learning, where portions are without an instructor and other portions are with an instructor in real time.

*EXPERIENCE WITH LEARNING FORMAT*

Participants were asked to indicate their most recent experience in the different learning formats, and to exclude any classes they have taken in formally enrolled university level degree programs. Participants were given the option of: (1) In the last 12 months, (2) Not in the last 12 months, but sometime in the past, or (3) Never.

## RESULTS

The descriptive statistics, correlations, and internal consistency estimates have been provided in Tables 1 and 2. The study drew from a large sample of educated individuals seeking professional development opportunities, 32.9% held a Bachelor's degree and 51.5% had achieved a Master's degree. The average age of those surveyed was 48, with ages ranging from 22 to 87. Both genders were well represented (51.3% male, 48.7% female). A dependent t-test was analyzed to test hypothesis one, participants' preference for traditional learning over e-learning methods. The results suggest that working professionals overwhelmingly preferred learning in a face-to-face environment ($M = 3.51$, $SD = .81$, $t(7246) = 370.39$, $p \leq .001$) over e-learning ($M = 2.81$, $SD = .98$, $t(7188) = 241.94$, $p \leq .001$). An ANOVA test, similar to that used by Dennis and Kinney (1998), (Tables 3 & 4) was conducted to evaluate whether or not recent exposure impacts e-learning preferences. The analysis of variance showed that the effect of recent exposure was significant for all three e-learning methods: asynchronous ($F(2, 7230) = 442.72$, $p \leq .001$), synchronous ($F(2, 7284) = 630.02$, $p \leq .001$), and blended ($F(2, 7152) = 293.77$, $p \leq .001$). Because the results of the ANOVA tests were significant, a Scheffe test was conducted to investigate the impact of recency within each of the three e-learning methods (Table 5). The results of the Scheffe test indicate that there is a significant positive correlation between participants' preference for an e-learning method and how recently they experienced a particular method.

**TABLE 1**
**MEANS, STANDARD DEVIATIONS, AND CORRELATIONS OF STUDY VARIABLES**

| | N | M | SD | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|---|
| 1. Level of Ed. | 6825 | 2.70 | 1.09 | - | | | | |
| 2. Age | 7295 | 49.11 | 10.87 | .10** | - | | | |
| 3. Gender | 7666 | 1.49 | .50 | .03** | .4** | - | | |
| 4. Trad Learning | 7246 | 3.51 | .81 | .02 | .08** | .11** | - | |
| 5. E-learning | 7055 | 2.75 | .93 | .03* | .05** | .03** | .05** | - |

* $p \leq .05$, **$p \leq .01$,

**TABLE 2**
**MEANS, STANDARD DEVIATIONS, AND STANDARD ERROR FOR ALL E-LEARNING METHODS**

| E-learning Method: | N | M | SD | SE |
|---|---|---|---|---|
| Asynchronous | 7465 | 2.88 | 1.18 | .01 |
| Synchronous | 7479 | 2.89 | 1.16 | .01 |
| Blended | 7405 | 2.68 | 1.12 | .01 |

**TABLE 3**
**MEANS, STANDARD DEVIATIONS FOR E-LEARNING METHOD BY RECENCY**

| | | | **Experiences** | | |
|---|---|---|---|---|---|
| **E-learning Type** | | Total | <12 months | >12months | Never |
| Asynchronous | M | 2.88 | 3.55 | 3.06 | 2.54 |
| | SD | 1.18 | 1.06 | 1.08 | 1.16 |
| | N | 7230 | 1312 | 2230 | 3688 |
| Synchronous | M | 2.89 | 3.43 | 2.95 | 2.41 |
| | SD | 1.16 | 1.00 | 1.04 | 1.14 |
| | N | 7284 | 2532 | 1753 | 2999 |
| Blended | M | 2.68 | 3.42 | 2.97 | 2.48 |
| | SD | 1.12 | 1.03 | 1.03 | 1.09 |
| | N | 7152 | 622 | 1682 | 4848 |
| Traditional | M | 3.51 | 4.08 | 3.79 | 3.55 |
| | SD | .81 | .92 | .97 | 1.14 |
| | N | 7246 | 4687 | 2084 | 570 |

**TABLE 4**
**MEASURING PREFERNCES OF DIFFERENT LEARNING METHODS**

**ANOVA-Preference for Asynchronous Learning**

| Source | SS | df | MS | F |
|---|---|---|---|---|
| Experience Asynch | 1103.75 | 2 | 551.87 | 442.72*** |
| Error | 9008.82 | 7227 | 1.25 | |

***p ≤ .001

**ANOVA-Preference for Synchronous Learning**

| Source | SS | df | MS | F |
|---|---|---|---|---|
| Experience Synch | 1437.30 | 2 | 718.65 | 630.02*** |
| Error | 8305.25 | 7281 | 1.14 | |

***p ≤ .001

**ANOVA-Preference for Blended**

| Source | SS | df | MS | F |
|---|---|---|---|---|
| Experience Blended | 676.23 | 2 | 338.06 | 293.77*** |
| Error | 8227.00 | 7149 | 1.15 | |

***p ≤ .001

**POST HOC ANALYSIS**

In order to better understand the implications of our findings, we felt it would be helpful to compare the impact of recent exposure on e-learning preferences to that of traditional learning preferences. Traditional learning preferences in three ways.

1. Learning experience held in person that is led by an instructor or presenter that is not held at a conference.
2. Learning experience that is offered by your employer in-house, and is facilitated by a staff member.
3. Learning experience that is offered by your employer in-house, that is facilitated by a consultant or trainer.

As we saw in online learning preferences, a "recency effect" also appears to occur in traditional learning preferences: In person learning ($F(2, 7341) = 121.72$, $p \leq .001$), in-house by a staff member ($F(2, 7305) = 641.90$, $p \leq .001$), and in-house by a consultant ($F(2, 7360) = 531.07$, $p \leq .001$). Because the results of the ANOVA tests were significant, a Scheffe test was conducted to investigate the impact of recency within each of the three traditional learning methods. The results of the Scheffe test indicate that there is a significant positive correlation between participants' preference for a traditional learning method and how recently they experienced a particular method. The results of the post hoc analysis have been included in table 6.

**TABLE 5**
**SUMMARY OF SCHEFFE POST HOC TEST OF E-LEARNING EXPERIENCE ON E-LEARINING PREFERENCES**

| e-learning Types | | | Mean Difference | SD Error |
|---|---|---|---|---|
| Asynchronous | | | | |
| | Less than 1 year | More than 1 year | .49* | .04 |
| | | Never | 1.02* | .04 |
| | More than 1 year | less than 1 year | -.49* | .04 |
| | | Never | .53* | .03 |
| | Never | Less than 1 year | -1.02* | .04 |
| | | More than 1 year | -.53* | .03 |
| Synchronous | Less than 1 year | More than 1 year | .48* | .03 |
| | | Never | 1.02* | .03 |
| | More than 1 year | Less than 1 year | -.48* | .03 |
| | | Never | .54* | .03 |
| | Never | Less than 1 year | -1.02* | .03 |
| | | More than 1 year | -.54* | .03 |
| Blended | Less than 1 year | More than 1 year | .45* | .05 |
| | | Never | .94* | .05 |
| | More than 1 year | Less than 1 year | -.45* | .05 |
| | | Never | .49* | .03 |
| | Never | Less than 1 year | -.94* | .05 |
| | | More than 1 year | -.49* | .03 |
| Traditional | Less than 1 year | More than 1 year | .28* | .03 |
| | | Never | .53* | .04 |
| | More than 1 year | Less than 1 year | -.28* | .03 |
| | | Never | .25* | .05 |
| | Never | Less than 1 year | -.53* | .04 |
| | | More than 1 year | -.25* | .05 |

*$p \leq .01$

**TABLE 6**
**SUMMARY OF SCHEFFE POST HOC TEST OF TRADITIONAL LEARNING EXPERIENCE ON TRADITIONAL LEARNING PREFERENCES**

| Traditional learning Types | | | Mean Difference | SD Error |
|---|---|---|---|---|
| In-house: Trainer | Less than 1 year | More than 1 year | .28* | .03 |
| | | Never | .53* | .04 |
| | More than 1 year | Less than 1 year | -.28* | .03 |
| | | Never | .25* | .05 |
| | Never | Less than 1 year | -.53* | .04 |
| | | More than 1 year | -.25* | .05 |
| In-house: Staff | | | | |
| | Less than 1 year | More than 1 year | .53* | .03 |
| | | Never | 1.13* | .03 |
| | More than 1 year | less than 1 year | -.53* | .03 |
| | | Never | .60* | .04 |
| | Never | Less than 1 year | -1.13* | .03 |
| | | More than 1 year | -.60* | .04 |
| In person: Instructor | | | | |
| | Less than 1 year | More than 1 year | .40* | .03 |
| | | Never | 1.08* | .03 |
| | More than 1 year | Less than 1 year | -.40* | .03 |
| | | Never | .68* | .04 |
| | Never | Less than 1 year | -1.08* | .03 |
| | | More than 1 year | -.68* | .04 |

* $p \leq .01$

## DISCUSSION

This study was motivated by the desire to better understand employee learning preferences, while focusing primarily on the e-learning trend. The continued projected growth of e-learning (Docebo, 2014) means organizations must understand how to maximize its increasing availability while at the same time improving employee perceptions and learning from this method of professional development. MRT was used as the theoretical foundation for this study (Daft & Lengel, 1984).

The results appear to present a strong bias in favor of traditional learning over all e-learning methods when it comes to professional development opportunities. So much so, that participants who had not ever tried an e-learning method of professional development (means range from 2.41-2.54) preferred e-learning methods more than 20% less than those who had never experienced traditional face to face professional development (mean of 3.55). This result is supported by MRT as face-to-face interaction is a richer communication channel. The findings of this study suggest that while individuals tend to prefer traditional learning over e-learning methods, recency of e-learning experiences appear to impact our learning preferences significantly. This suggests that individuals rate e-learning more favorably when they have actually experienced it, and even more so when they have experienced it recently. This is an

important but not necessarily surprising result. Change management literature has discussed for many years that getting people involved and seeing the value of the change goes a long way in reducing employee resistance (Creasey & Taylor 2014). Thus, providing employees with the opportunity to experience the benefits of e-learning will impact their preference for continued professional development through that medium. Regardless, of the increased preference for e-learning based on recency, traditional learning is still the most preferred.

The findings also suggest that while blended learning is frequently touted as the "preferred e-learning method" (Sparrow, 2004), this does not appear to be the case with this sample. As noted in the results, regardless of the recency effect, asynchronous is most preferred with synchronous and blended learning receiving very similar preference ratings. Being able to complete learning when it is most convenient for the individual may be why asynchronous learning is the most preferred. Participants seem to prefer the opportunity and flexibility to learn at their own pace which is consistent with Garavan, et al. (2010). This is likely because individuals prefer e-learning when they can take advantage of the unique benefits afforded, such as minimal travel required, reduction in cost, and flexibility (Zhang, et al., 2004). Blended learning may add some much needed socialization, but potentially at the expense of reducing the benefits mentioned above. In this technology-driven time when individuals want instant access, it is not surprising that they prefer the convenience and the autonomy of asynchronous e-learning.

The results also suggest that individuals prefer synchronous e-learning (M = 2.89) over blended learning (M = 2.68). Many of the advantages associated with asynchronous e-learning apply to synchronous opportunities as well (e.g. minimal travel, reduced cost). There is also more flexibility in a synchronous course than blended learning. While blended courses do require some autonomous learning, it is less-self-paced compared to synchronous learning. This may be one explanation for the result. More research is needed to better understand the perceived value associated with e-learning and employee learning preferences.

A particularly interesting, but not surprising, result focuses on the recency effect. Regardless of the learning method, individuals preferred the method they had experienced most recently. Individuals who had completed a traditional course within the last twelve months preferred this method over all other methods of learning. Within e-learning, individuals who had experienced an asynchronous or a synchronous course within the last twelve months preferred them over blended learning.

There are multiple implications from the results of this study. First, researchers need to be aware of the impact of recency and include it when measuring learning preferences or the effectiveness of one type of learning method over another (traditional vs. e-learning). Some research (Muilenburg & Berge, 2005) has only looked at whether a person has been exposed to a particular learning method (such as e-learning) or the number of times a person has taken, for example, an online class. This study highlights the importance of also measuring the temporal proximity of the learning method to assess any recency effects that may be occurring. An example of this phenomenon can be seen when looking at the data on learning preferences. Once learning preferences are broken down by recency, you can see that a much lower percentage of participants have experienced blended in the last year (or at all) in comparison to the other learning types (see table 3). As a result, this may give the impression that blended learning is perceived to be less desirable. However, when focused only on participants who have actually experienced blended learning, preferences for blended learning are similar to that of synchronous learning.

Another implication related to recency is a practical one. The results demonstrate that the preference for e-learning is stronger when individuals have experienced it lately. This provides evidence to support that when organizations encourage employees to use e-learning methods they will most likely see an increase in the preference for more e-learning in the future (Dick, et al., 2005). However, recency seems to impact preferences towards each type of learning whether traditional, blended, etc. so companies, particularly training and development departments, need to be aware of recency when designing new learning opportunities for employees. It will take time for employees to adapt and embrace the new development opportunities. Also, the "recency effect" underscores the value of encouraging continuous learning in the workplace. The results of this study suggest that employees who are regularly exposed to e-learning professional development opportunities will be more likely to view them positively. A practical

implication for organizations, based on the results, is if they expose their employees to e-learning methods, their preferences for them will likely increase. However, according to the results of this study continuing to also provide traditional learning methods is still more preferred by employees. This is valuable information when organizations are trying to decide which learning method to choose for training and professional development. Based on the results and effects of recency, the more exposure individuals have the more comfortable they will become with it. Also, our results support MRT, individuals do prefer traditional methods of training that allow for a high level of feedback and interaction with the instructor.

## LIMITATIONS

There are a few limitations that need to be noted. First, is the issue of data collection, all of the variables used in this study were measured using self-reported data. Nevertheless, many researchers have documented the importance of studying individuals' reactions of training because those perceptions impact many learning effectiveness outcomes. Therefore, self-reports are common in these types of studies but more research is needed to assess employee perceptions of e-learning and the impact those have on actual learning.

Another limitation is the use of secondary data and the concerns about accuracy and subjectivity. However, data was collected from over seven thousand employees across multiple companies making the sample size significantly larger than most of the research in this area. If a similar study concentrated in one organization, then it may be possible to gather data from multiple sources and to use more objective measures instead of relying only on self-reported measures. However, it would be difficult to replicate such a large sample as the one used in this study in a single organization.

## CONCLUSION

Based on the results of this study, traditional learning is most frequently preferred, followed by asynchronous, synchronous and blended learning methods. MRT suggests that learning methods with richer communication are preferred over less rich media options. This may explain why traditional face-to-face methods are preferred over all e-learning options. However, the findings here suggest, in the e-learning environment, more social interaction is not always preferred. The findings also suggest that individuals have a tendency to prefer learning method that they are familiar with and have experienced recently. Organizations should consider employee preferences and previous experiences when developing learning programs particularly when weighting the advantages and disadvantages of the different forms of e-learning.

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