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Designing Workplace Training for Generational Differences: Does It Matter?

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Abstract: There is little to no empirical evidence that designing instruction to match individual learning styles increases learning. Similarly, the same is true when people are grouped into “generations”. If generational differences exist, the size of their effect is small and does not affect the effectiveness of training. Still, educators and trainers overwhelmingly think differentiated design based on learning styles and generational differences cause students to learn more. Why? I argue that there are other outcomes to instruction besides *effectiveness*. If instruction matches an individual’s preferences, content and skills can often be learned more *efficiently* and certainly *appeal more* to the learner than if it does not match their preferences. It is argued that both efficiency and appeal of instruction are important outcomes for students even when effectiveness is not significantly changed by matching the instructional approach to the learner’s preferences.

Keywords: workplace training; generational differences; effective learning design; efficient learning design; appeal in learning design



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1. Designing Workplace Training for Generational Differences: Does It Matter?

Just as an individual’s learning can be visual, auditory, or kinesthetic, each generation has a learning style, that, when used during instruction, produces more effective when learning new skills and knowledge.

The statement above sums up well the premise of varying training strategies in the workplace that are based on generational differences. Learning style refers to individual preference for mode of instruction or study. That is, one of the most cited sources defines learning styles this way:

The term *learning styles* refers to the concept that individuals differ in regard to what mode of instruction or study is most effective for them. Proponents of learning styles assessments contend that optimal instruction requires diagnosing individuals’ learning style and tailoring instruction accordingly. [1], (p. 105)

Furthermore, according to proponents of learning styles, instruction is best when the methods, strategies, and format matches that of the learner’s preferences (e.g., visual, auditory, kinesthetic) [2].

The problem is that there is little to no empirical evidence that matching instruction based on an individual’s learning style preferences (i.e., the meshing hypothesis) increases the *effectiveness* of learning, nor is there evidence that grouping people by the generation in which they were born, and matching an instructional strategy is any more effective than not matching instruction based on generational differences. In the last four decades, widespread advocacy by educators has led to “matching” instruction to a student’s learning preferences to help that student learn more effectively (e.g., [3]).

Given the wide variety of learning styles in each classroom, it is not possible for the teacher to accomplish this matching. However, even if it were possible, research studies have found little to no evidence that such alignment leads to more effective learning. Still,

the learning styles theory of matching is deeply engrained in the educational system. Ninety percent (90%) to ninety-five percent (95%) or more of educators believe matching increases learning [4–7], and this belief is also true for learning and development professionals in the workplace (e.g., [8,9]). In the last quarter century, especially in the workplace, the learning styles theory has been transferred to groups of learners, and a very popular grouping is the learner’s membership in “generations.”

In this paper I argue that matching instructional strategy to generational stereotypes is no more effective than not doing so. I also present an alternative to why so many instructors believe this meshing of instruction to generational differences increases learning.

2. What Is Meant by Generations

A generation is a *cohort* of individuals who are born between two dates (i.e., within a *time-period*). The idea is that the people of similar *age* share experiences that create similar characteristics such as values, attitudes, and beliefs [10–12]. The variables in this definition have meaning when researching generational differences. Costanza, Darrow, Yost, and Severt [13] explain that *age effects* are based on biological or social variations between individuals caused by “maturation, life state, or other developmental factors that occur regardless of the time-period” (p. 149). *Period effects* are variations between individuals that are related to a particular historical event affecting all ages within that time-period, such as the attack on the World Trade Center. *Cohort effects* refer to “reduced variation within groups of individuals based on birth year or groups of birth years” (p. 149).

3. Generational Learning Styles Preferences

While there is disagreement in the literature, following are six generations and their approximate birth periods, five of which are found in today’s workplace:

- The *silent generation* (Matures) (Radio babies) is made up of all the people who were born between 1928 and 1945.
- *Baby boomers* are people born after World War II. More precisely, people who were born between the years 1946 and 1964.
- *Gen X* is the group of employees born between 1965 and 1980.
- *Gen Y* (variously NetGen or Millennials) are those born 1981–1996.
- *Generation Z* are those born between 1997–2012.
- *Generation Alpha* is composed of persons born 2013 and later.

There are hundreds of articles, book chapters, and books that state many managerial issues regarding each generation, which require differentiating approaches to meet each generation, because each generation is thought to have unique characteristics. Many of these author-practitioners suggest that generational differences should be included when designing learning and developing events (see e.g., [14,15]). Mostly, these are replete with opinions and stereotypes concerning what members of different generations value, think, and how they behave [16–21], for example:

Matures (Radio Generation or Traditionalists or Veterans)—Not familiar with technology. Personal interactions. Managerial experience. It is important for this age group to be recognized for their qualifications and experience. Clearly outline and state objectives.

Baby Boomers—Expect Boomers to be technologically familiar with emails and their PC but are less likely to be busy with electronic social networking in the manner of younger generations. They prefer to work face-to-face and are receptive to classroom learning for soft skills. View change as painful but inevitable. Have an organized presentation. Facilitate group discussions and use case studies.

Generation X—Expect this group to be skeptical and at times challenging, but hungry for knowledge and willing to seek plenty of feedback. GenX prefer on-the-job learning. Self-reliant. Recognize the significance of each learner’s contribution. Seek feedback from GenXers and provide feedback and summarize key points. Use role play, demonstration, and allow learners to explore.

Generation Y—Millennials want to work collaboratively across communities with ready access to technologies, which they will see as embedded in everything they do. They favor learning while doing, with regular coaching and feedback. Technologically friendly. Want to lead. Value deeper purpose and philosophy at workplace. Want judged by quality of work and not the hours of work. They are more visually literate than previous generations. Gen Ys are independent learners, so give them the goal and they will find the information they need to learn. They need frequent breaks every 10 to 15 min. Provide a reward for correctly answering questions. Make training fun—incorporate nontraditional approaches such as physical movement, multi-tasking, learning by doing. Direct learners to related blogs. Develop an e-game.

Generation Z—Extremely comfortable with latest technology. Looking for stability. Prefer flexible work hours. Prefer diverse workforce.

4. Literature Review

There are some researchers who conclude that generational differences should be accounted for when designing training programs (e.g., [22]). Still, effect sizes tend to be small if they exist at all, and some findings are inconsistent with popular stereotypes. Despite the hype found in the management literature and media, research has found little support for generational differences between groups (see e.g., [23]). Meaningful differences may not exist at all. For example, differences in work values or motivation (Macky, Gardner, & Forsyth, 2008), work-related attitudes [24,25], job satisfaction, organizational commitment, and work [10], personality and motivation [26], age and time period [27], work ethic [28], attitudes, values, expectations, behaviors [29,30], and personality, work values, work attitudes, leadership, teamwork, work–life balance, and career patterns [31]. Even when results indicate statistical significance, “the relationships between generational membership and work-related outcomes are moderate to small, essentially zero in many cases” [24] (p. 375), and are related more to age than generation [26,32], for instance, it has been found that:

The overarching conclusion from this analysis of the state governmental public health agency workforce is that Millennials are not different from Generation X or Baby Boomers. If anything, Millennials have better attitudes and are more open to training experiences compared to their counterparts in other generations. [32], (p. 76)

Finally, research on generational differences suffers from many of the same weaknesses as learning styles research. Coffield, Moseley, Hall, and Ecclestone [33] extensively reviewed the literature on learning styles research, and, summarized that generational differences should not be used as a basis for making decisions concerning the effectiveness of people learning in any generation.

5. Generational Differences Affecting Workplace Training

There has been little empirical research done that involves generations and their effects on training. A couple of dissertations have reported work in this area [32,34]. Still, there is a plethora of popular articles, workshops, and consultants that tout the importance of generational characteristics to use when designing training. These sources are approached with caution here. The concept goes something like this:

To provide the best training and development to our clients we need to understand how to train across generational divides rather than allowing generational differences to short circuit that crucial communication. We’re all familiar with the typical items that separate generations: hairstyles, vocabulary, music, and clothing. Others are not as easily identifiable. For example, the term “team” has different generational connotations. [35] (para. 2–3)

The idea that each generation has its own “personality” is emphasized in these prescriptions for designing training. How one communicates with people of different ages

often matters in managing, recruiting, and retention of employees, but how much do these generational differences matter in training and development?

6. Actual vs. Perceived Differences

Differences across the generations are small, and methodological problems could mean that they are practically non-existent. Most of the generational differences research is cross-sectional studies that controls periodical effects but confounds generation and age [13]. In fact, King, Finkelstein, and Thomas [36] argue that there is considerable variety of preferences and values *within* each of the generational groups.

Additionally, studies involving generations are persistently criticized on methodological grounds. Most studies are cross-sectional rather than time-lag designs. In the popular press, generational differences command much media attention, but are susceptible to stereotyping and exaggeration [31,37] (for a more technical review of methodological problems see [13]).

From an instructional design perspective, the individual should be the unit of analysis. That does not mean one must reject group differences. There are differences by age, gender, culture and nationality that can affect traits such as values, behaviors, and attitudes [38]. What matters are individual differences. Each learner has unique circumstances, needs, and working styles. What may matter most in training in the workplace is a person's perceptions regarding generational differences, rather than any actual differences that may exist.

One of the confusing aspects of generational research deals with definitions of variables. Some studies use *perceived outcomes* in learning rather than actual learning differences. Perceptions and realities of generational differences in learning are different [39,40]. For example, stereotypes, whether accurate or not, affect behaviors in the workplace. Similarly to most stereotypes, those that divide generations are based on many assumptions rather than on reality [36,41–43].

Why Can't the Generational Differences Myth Be Killed

Why are generations so ubiquitous regardless of the lack of evidence for their impact or even their existence? A recent study [7] states:

A number of reviews, going back to 2004, have concluded that there is currently no empirical evidence that this “matching instruction” improves learning, and it could potentially cause harm. Despite this lack of evidence, survey research and media coverage suggest that belief in this use of Learning Styles theory is high amongst educators. (p. 1)

Arbitrary grouping of people into generations does not help the understanding of learning preferences in school or at work. As Rudolph, Rauvola, Costanza, and Zacher [44] explain:

This manuscript sought to . . . dissuade the use of generations and generational differences as a means of understanding and simplifying such complexities. First, we aimed to “bust” ten common myths about generations and generational differences that permeate various discussions in organizational sciences research and practice and beyond. . . . Our hope is that this manuscript helps to “redirect” talk about generations away from their colloquial use to a more critical and informed perspective on age and aging at work. (p. 967)

However, no matter how often “generational differences” are declared concluded, finished, or dead, they seemingly and supernaturally are resurrected. “Generational differences” follows the *Zombie Education Rule*: no matter how often it is killed, it keeps coming back—it is indestructible.

7. Instructional Outcomes

There are three major outcomes of instruction: effectiveness, efficiency, and appeal or enjoyment (see Figure 1). Effectiveness has to do with how well the instruction enables learners to achieve stated goals or expected outcomes. It is the instructional design that primarily determines the effectiveness of instruction. Technology has more to do with the efficiency and the affective aspects of learning. Obviously, if instruction is not *effective*, that is, if learners do not learn what the objectives of the learning event is, nothing else really matters.

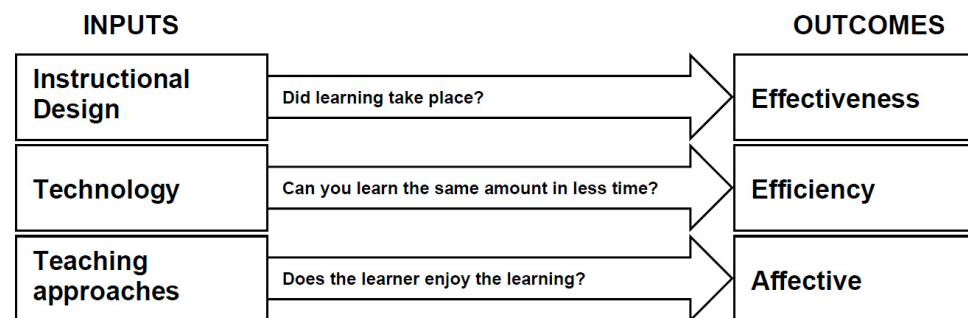


Figure 1. Learning outcomes and important antecedents.

7.1. Effectiveness Outcomes

Instructional design determines the effectiveness of instruction. Well-designed and executed instruction overwhelms any small differences regarding effectiveness. By well-designed instruction is meant consistency among four elements of the instruction: (1) goals or objectives, (2) content, (3) the teaching methods and approaches used, and (4) the assessment and evaluation of the learning. Secondly, there must be integration or alignment of these four elements with real-world performance.

7.2. Efficiency Outcomes

Learning theories (e.g., behaviorism, constructivism) strive to promote the integration of approaches, context, and learner characteristics to design, execute, and evaluate effective, appealing, consistent, and reliable instruction. There is evidence that when learner characteristics and preferences are considered in the design of instruction, efficiency is gained (see e.g., [45–47]).

7.3. Appeal Outcomes

Another reason “generations” and “generational differences” are so ingrained in instructional venues is that learning is more enjoyable to the learners when they can use their preferred approaches while learning. Perceptions matter. When learners are asked, they believe their learning is greater when matched to their preferences, regardless of the actual learning taking place (see e.g., [48,49]). These perceptions show up in evaluations and conversations with the instructor, causing both learner and instructor to perceive the matching of approach to learners’ preferred style is more effective. Eom, Wen, and Ashill [48] state it simply, “different students learn differently, and students experience higher level of satisfaction and learning outcomes when there is a fit between a learner’s learning style and a teaching style” (p. 218).

8. Conclusions

Learners’ time is valuable. If the learner can learn the same amount in less time, that efficiency is important to them. It is also important to create instruction that is enjoyable to the learner. Appeal of instruction matters regarding things such as the learners’ motivation, attitude toward learning, and retention. Matching a learner’s preferences to teaching approaches does not increase the effectiveness of learning very much if at all. However,

when an approach to instruction is the same as the learner's preferred learning styles, it increase the *efficiency* and especially the *enjoyment* of the learning.

Instructional designers must not make assumptions based on stereotypes often found in popular literature. Gen Xers in one organization may be hugely different than persons in the Mature Generation, or they could be quite similar to each other in another organization. It depends upon many factors [50].

When designing instructional approaches and the learning environment, it is wise to find out as much as is reasonable about the characteristics and preferences of the actual learners involved, such as their experience, stage of their career, age, attitudes, work habits, motivation for taking the instruction, culture, etc. Learning style preference is one of many characteristics to be considered. Instead of focusing on generational differences, design of instruction needs to be flexible to meet all employees' needs across all age groups.

It is important to realize the *iterative nature* of instructional design. Start with consistency among the elements and a variety of approaches. Once the instruction is delivered, feedback is gained, and adjustments can be made before the next delivery of the instruction [51].

The implication for practice is that the less the designer knows about the learners, the more important it is to include several different approaches to learning the same content, such as technology-enabled training, and on-the-job and mentorship development efforts. This gives learners some freedom to choose the learning style they prefer [52,53]. The point is that instructors need to teach in a manner that is conducive to learners with varying preferences [54]. Doing so may often increase efficiency and appeal while maintaining effective design—all three are important outcomes.

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