Human Performance Technology Wins

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Abstract

Regarding to the application of human performance technology (HPT) in the field of online learning environments pertaining to the use of educational technology, HPT shows itself as a strong critic of analysis improving human performance while finding its own critiques. HPT has found its way into organizations thrusting the need for educational technology to assist in filling gaps. Much of the technology may be considered some form of self-paced online education. Some corporations use other models with less effectiveness.

HPT has a long history and multiple documented studies of use to determine which interventions would be best to move our existence along with great analysis to back the processes created for improvement in training or nontraining interventions created by instructional designers. Some results find online instruction using educational technology as the perfect interventions for the desired results. The assessments and outcomes prove HPT to be well advanced and the exact model for organizations.

Some designers reported HPT is not the answer and document the opposite focusing on using instruction instead of interventions believing that HPT using educational technology online in a systematic way is a waste of time and effort. Regardless of the critics, HPT is a strong model to use alone or with other models in sync with each other.

Keywords: human performance technology, educational technology, gaps, effective, corporations, online education, ELearning

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HPT is not easily defined, yet the process is an impeccable, noncomparable process with the ability to create fine longstanding effects for organizations. An introduction to the HPT model shows that the gap falls between the "Desired workforce performance" and the "Actual state of workforce performance" (Pemberton, Hoskins, and Boninti, 2011, p7). This means to designers that in the end the outcome goal is measured by where the staff currently is and where they want them to be. The difference is the gap and just how to fill that gap. For many corporations, educational technology is used to assess and share the trainings with staff to close that gap. Interaction and communication go hand in hand in professional environments, thus providing more opportunity to share information. With the technology of networks people can receive and share content immediately to the entire company. "For corporations, this means, among other things, that the message can be challenged, criticized, refuted, mocked, and parodied" (McKee and Porter, 2017).

Multiple other types of analysis models have come and gone, while HPT stands and is used as a master still. Critiques of other styles have mentioned it as an old system to promote themselves, yet documentation shows it was used well then, now and in future learning programs using educational technology or not depending on the needs for the desired performance which depends on the gaps found in the analysis phases. While recognized strategic advantage comes from human performance technology. (O'Driscoll 2015) During this time e-learning/e-training systems are being connected to organizational human resources while keeping their employees trained. (Song and Kidd, 2009). Budgets continue to show and are expected to move more in the direction of corporate online learning. (Song and Kidd, 2009).

These online platforms are created within the environment for the same organization and staff that need the training just as seen in other educational settings. The learner understands the

ins and outs of all the material when it pertains to their organization when created by their own corporation and other companies with familiar materials (Song and Kidd, 2009).

HPT studies show that the annual reviews of corporate assessments including business plans fall short to create actions that actually move towards performance. Without looking at the entire company and assessing, these companies miss out on instructional or non-instructional opportunities to better their objectives.

HPT and Instructional Technologies (IT) within many professions have similar diverse performance and learning goals. They all focus on people growing in their performance through improved learning. (Cho and Cho 2017) HPT is used to identify gaps of current and desired performances while using instructional and/or educational technology to meet the goals. (Kang and Kang, 2017) Performance gaps and reasons for the gaps are sought for at the same time during analysis consultations. "The ISPI HPT model is a logical and mental iterative process performed in a sequence during the performance analysis and cause analysis" (Kang and Kang, 2017)

The persons who first studied HPT in the 70's analyzed how the employees performed rather than the results of the outcome. This removed them from the instructional designer category. (Kang and Molenda, 2018, p5). There is no agreed upon definition for HPT since the creation even with agreed upon similar traits for determining certain acts to follow when using it. (Kang and Molenda, 2018, p8). HPT's path to advancement in productivity is unique to alternative pursuits. The approved key attributes involved in the HPT process includes "systematic, systemic, evidence-based, cost-effective, and ethical, with the value of the intervention determined through evaluation" to help organizations succeed and the community advance. (Kang and Molenda, 2018, p20). Kang and Molenda, (2018) believed in a systematic intervention came after evaluation.

Historical HPT Results

You will find there are many articles written by many designers referencing how the HPT model and how it positively affects performance issues. Educational technology has a long history which began after World War II. It was in greatly needed when training was needed for the technology used in the war. (Martin, 2017). At this time a determining model such as the Human Performance Technology model was required to guides educational designers in a systematic and comprehensive study to regulate the interventions of training and/or nontraining designs and how to creative adequate clarification to solve performance problems. HPT is a very mature model being scrutinized, explored and referred to for years. (Czeropski and Pembrook 2017)

Chung and Chung (2018) reported using HPT using "systematic steps" to produce results. Pemberton, Hoskins, and Boninti (2011) shared how they determined performance issues using my favorite "Gap Analysis" process. Kang and Molenda (2018) discussed correcting on-the-job performance. Gilbert, (2019) being more informal and favoring positive examinations when discussing performance feedback. He didn't like the rude way some commented that some staff are not worthy. Finally, Hoard and Stefaniak (2016) appreciated documenting their HPT findings on a regular basis regularly. Human performance technology (HPT) is valid when it is able to complete outcomes that match measured efforts of each stakeholder. (Watkins, 2007). Organizational and people's performances are attributed to HPT outcomes. The following systematic steps have assisted in changes resulted by using the HPT model. They include finding the purpose or reason, creating solutions, adding assessments, that the solutions are possible and able to be followed, the solutions are followed correctly and that the outcomes are evaluated. (Chung and Chung, 2018, p.3) The best opportunity is to make sure the high achieving and willing employees are allowed to work with their best effort. "Willingness is based on

motivation, satisfaction, and engagement with the job, the boss, and the company" (Chung and Chung, 2018, p.9) Finding if performance has improved is a requirement for measuring success of the HPT process. (Chung and Chung, 2018, p.11)

Chung and Chung (2018) believed better results would be had when positive roles and influences were provided to individuals. When applying the HPT process to a Learning Commons the authors found the performance issues within the organization and employees helping find solutions for the issues. Performance issues were solved by the HPT model. (Pemberton, Hoskins, and Boninti, 2011, p1). "Gap analysis" has specific ways to measure current performance versus the desired performance outcomes determined by using the data collected during the "organizational and environmental analysis". The HPT model shows that the gap falls between the "Desired workforce performance" and the "Actual state of workforce performance." (Pemberton, Hoskins, and Boninti, 2011, p7) Consequences and incentives may be helpful to improve performances. Training may not be the only option to benefit performance objectives. Identifying performance issues using the HPT model may be used to identify other issues if trainings have not influenced more satisfying results. It may be beneficial to implement other nontraining actions to reach the results sought after. (Pemberton, Hoskins, and Boninti, 2011, p16) The use of formal discipline may be the most useful nontraining tactic to achieve goals according to assessments conducted by Pemberton, Hoskins, and Boninti, (2011).

Low productivity has been blamed by ideals of minimal interference with no proof or real studies behind the opinions of uneducated managers. Saying that people are "too dumb" or "just don't care" being the reason why they do not work at their top ability is easy to say. (Gilbert, 2019, p7). Incentives, information, and instruction design are performance technology vocabulary words that can help make huge strides in performances. (Gilbert, 2019, p11). Incorrect measurements of identifying missions and key accomplishments, performance and

observation will cause problem areas. (Gilbert, 2019, p13). Gilbert (2019) forces managers into looking further into their staff's lack of performance and disagrees with disrespectful slander. Long lasting improvements of performance will not happen if the interventions are not lined correctly. Valuable results should be the first focus when using performance technology and making decisions. (Watkins, 2007). The Human Performance Technology is relied upon by Performance Improvement (PI) practitioners to assist in creating interventions for organizations. One of the most overlooked or misunderstood part of the HPT model is the process to create the vision, mission, and values for an organization. (Kirkpatrick, 2017). "Alignment begins with the strategic goals and objectives of individuals, organizations, communities, and societies. It begins with these intentions because they define the expected results of any performance improvement effort." (Watkins, 2007). (Kirkpatrick, 2017) defines concepts as "Vision is the positive impact that the organization wants to have; a vision statement is a formal description of the organization's desired, long-term future state. Mission is the organization's purpose; a mission statement defines the products or services provided to customers or constituents. Values are ideas that are important, and that the organization seeks to retain; they define the means or behaviors by which the organization will go about attaining its vision. Strategy is how the organization will carry out the vision and mission." He states that some companies do not summarize vision and mission statements together. While vision and values are combined some combine the vision, mission and values together. If the HPT processes were completed and understood fully, these standard definitions would not be combined and would be statements to take action on.

The Human performance technology (HPT) was created to help use a strategy ideally for implementation of a process to improve performance for people in organizations with technology to grow the companies and new innovations needed to fill in the gaps for productivity. This leads to comprehending and predicting and proactive production of creations for the future markets.

Collaboration and teamwork within organizations are motivated with employee involvement. (Kan, Chung, and Chung, 2019). HPT choices are optimal for performance goals when the strategic outcomes are aligned. Performance expectations are moved forward with performance expectations achieving the best results when these expectations are the focus. (Watkins, 2007). Organizations who have leaders devoted to the creation and identifying the characteristics of improvement towards public policy implementation use HPT to add value by approaching their goals systemically and systematically. (Andrews, Farrington, Packer and Kaufman, 2004). The end goal is achieved by using powerful technology to help people who use HPT. (Andrews, Farrington, Packer and Kaufman, 2004).

How Educational Technology Fits in With Corporations

Many popular online interactive technologies unexpectedly found themselves in the workplace helping with corporate trainings from simulations, networking, collaborations to communications combining multiple type of technology or mixed media to be present as a resource and to also use as assessment devices. An unexpected relatively new popular piece of technology with consumers has found its way into corporations as a multiplayer online game favored by role players. Virtual reality (VR) games such as Second Life (SL). SL is created by users limited by their imagination in an open-ended three-dimensional location in a virtual world. SL was created for fun and personal entertainment is now being used in corporate environments. The open-ended variable of the technology allows corporations to be customized by the users making It a perfect location for education and creation. Strength and weaknesses are being investigated by authors for designers who may want to us SL to find what may cause problems during "enhance training, collaboration, or marketing strategies." (Burkett, 2008). Yu, Yu, Sun, Sun, Chen, and Chen (2019) found the results of their augmented reality (AR) correlated with a person's relative interest, retaining what they have learned in the process of being taught using

the wearable technology during directional tours compared to audio only tours. The student's

interest was increased with visual cues, they were entertained while learning and they enjoyed it

and excelled more. Le, Tran, Trinh, Nguyen, Nguyen, Vuong, and Vuong, (2019) remind us that

learning activities in a STEM class should revolve around an authentic context. Understanding

how the outcome skills and knowledge are relevant to real life situations is as important as the

learning process itself. This circles us right back to using interactive technology in the

workplace during VR or simulated training and many other possible options proven to supply

positive practices of human performance and academic motivation. Correct assessment is needed

for gamification and fun technology. Sargent, (2017) does not believe this assessment is

available and may not be being assessed correctly or at least the results are not understood or

readily available. He believes it is not being used to fill a gap other that motivation. He does not

believe real assessment is being respected and that these fun educational tools may simply be a

marketed tool more than a useful piece of technology. Others believe gamification is very

effective and the research is just as new as the technology. Both are at their infancy stages.

Motivational game points, badges, awards and other game like graphics and systems can be used

in the corporate world as much as educational, recreational or entertainment. These game like

learning environments are thought to motivate learners and some say the high motivation of

gamification increases learner achievement. There is no scientific evidence to confirm it is

useful. (Sargent, 2017) In online learning or general e-learning, instructional videos are common.

A virtual classroom can be compared to a classroom at school. A webinar is also a known

concept. This format can be compared to a seminar or workshop at a university. Online seminars

and online courses where learners participate in classroom like materials or videos and complete

assignments. When questions come up about the content tutors are available to assist the

learners. Massive Open Online Courses (MOOC) are open courses free available online with

possible meetups, video conferences when interaction takes place. Online gives the option to vary how courses are designed. Online courses could provide similar opportunities for participants such as "self-paced learning, have a start as well as an end date and provide college credits, a badge, a learning community, scripted assessments and feedback." (Sillak-Riesinger, 2017).

Training as a behavioral technology was taking indirectly from cognitive psychology as a theoretical plan, key tactics are the same for some teachings. No matter if the class materials used the technology named "advance organizer" or a "conceptual latticework," or similar structures, they are all created the with the same structure. (Edgar, 2004). "Technology is not neutral, it is not merely instrumental, and our uses of it change us, fundamentally." Communication technologies are said to be active agents shaping humans and their activities, but not determining when and who we communicate with or who we are. Prior to now they were simply devices to share information to and from. Ethical communication may be influenced to be designed at the front end and keep the technology moving in the correct direction. (McKee and Porter, 2017). The HPT model has a much more defined path even if it is not specifically defined. The technology cannot rule, but the educational material and desired outcomes can be met using many types of technology. Currently efficient processes and improvement of performance are goals for organizations. Online learning can provide shorter class time and when time is of the essence, this option is enticing. Online experiences may have shorter amount of text, more concise and the fluff stuff is removed. (Edgar, 2004).

Organizations have found it beneficial to create their own short quick self-help files in an online intranet infrastructure library of sorts for their staff that pertains to job specifics searchable and reachable in the moment of need. (Edgar, 2004). Web-based training (WBT) and cognitive behavior therapy (CBT) training and exercises can be shared on these company

networks intranet or on the internet are grouped under the same in elearning classes or available on CD-ROM requiring technology to participate. (Sillak-Riesinger, 2017).

Corporate Online Educational Technology Assessment

Sillak-Riesinger (2017) summarized that concise corporate training and human resource department trainings can be housed using online technology departments trainings. Saving time, money and travel are just a few benefits of online trainings allowing staff to consistently learn content more rapidly. In order to determine which classes to provide and personnel to train online versus face-to-face, assessments and skills had and skills needed are used. Performance objectives are measured of each learner and their abilities to find what needs to be taught. (Hoard and Stefaniak, 2016, p.11) Performance intervention and training have grey areas of understanding for the leaners. Employee level of performance intervention is hard to assess when the learners are not certain why they were taught something new. (Hoard and Stefaniak, 2016, p.28) Observation is needed to determine the day-to-day procedures to find if the interventions worked comparing to the companies' standards.

By addressing each standard individually and looking through the lens of the day-today operations of a performance improvement practitioner, practitioners in the field could reexamine or confirm the need for revisions to the existing standards and their alignment with everyday practice. (Hoard and Stefaniak, 2016, p.28) Evaluation and reinventing materials determined by need and the learning process was the head of the approach for Hoard and Stefaniak (2016) They also confirmed the human resource department (HRD) and Training and Development (T&D) benefit from the online learning outcomes benefiting the company as a whole.

Additional Models and Critics

Forms of measurements other than the HPT model have been used in studies to evaluate performance. This performance measurement in some articles is merely the outcome of using the

technology in its acceptable behavior and not as a tool to find a gap. Positively or negatively influences perceived academic performance (PAP) and academic motivation (AM) can help measure performance. It can be assumed that based on PAP, students with stronger AM may not compulsively use Internet or use it for academic purpose, while students with less AM may compulsively use Internet and for entertainment purpose.

Studies also show that if you can find one confirming position on a model, you can also find an opposing opinion. A simple search on your search browser for "gap analysis performance", you will receive about 298,000,000 results in (0.71 seconds). Human Performance Technology is not listed on the first two pages, yet it is still the highest used and respected model as you have read. Educational technology and HPT results continue to rise above the critiques who say there are no results and possible a waste of time. Fans of other types of analysis models say the HPT process is long gone and not used while many fans of HPT are still documenting achievements of HPT.

"HPT and Agile are both principle-based approaches, both sustainable and compatible. HPT teaches the practice of performance consulting, which represents a skill set that involves collaboration, relationship building, and front-end analysis, elements that are missing from the Agile process" Czeropski and Pembrook (2017). HPT professionals and instructional designers tend to use nontechnology solutions for performance improvement possibly just as much as they use training as interventions. IT and ET specialists are more likely to choose technology only. Cho and Cho (2017). Many scholars believe HPT is the way to measure performance. Czeropski and Pembrook (2017) says while "HPT is the old model and Agile is the new model", they can be used side by side instead of replacing each other. HPT and Agile instructional systems have a way of working together to assist in finding solutions to advance. Instructional solution neutral, fostering improvement of performance more than solutions or methods of instruction is the way

of Agile instruction design. It adds value to goals for organizations with all stakeholders and

team members involved including the experts in the field working together instead of combining

efforts with separate results.

"The last 40 years have seen an ever-repeating cycle of hype and hope, adoption of much

heralded new tools or methods, lack of evidence of positive educational outcomes and

subsequent transfer of enthusiasm to the next development" (Cho and Cho 2017) Many designers

and developers want to come up with the next best method to use to determine how to improve

performances and outcomes. Czeropski and Pembrook (2017) is opposed to HPT and says they

think focusing on instructional methods is more important than using the HPT model or other

design models. They believe all of the models are the same, but not as important and

understanding the instruction to fix the performance problem. They insist on reversing the

engineered Agile instructional design process and using to quickly find the performance

problems with performance analysis disregarding the Agile or HPT process.

Czeropski and Pembrook (2017) states that people who use HPT have distracted

themselves with systems that are too strict and are bling to opening up to the needs and causes

leading to solutions for training opportunities and too focused on performance interventions.

Conclusion

Human performance technology has been around since 1962 and helped define

interventions for many fields and has matured to where it is today. Beginning with the very first

meeting in, the purpose of the creators of HPT was to find ways to improve human performance

(O'Driscoll 2015). These Human Performance Technology developments and designs to find the

gaps are regardless of the type of educational/instructional technology used, the field of online

learning or the use of educational technology in the traditional classroom. In learning

environment defined as any formal educational setting such as, but not limited to k-12, higher

education, vocational education, corporate training or military training in any narrow focus. As previously mentioned, the process of HPT can find the difference of "Desired workforce performance" and the "Actual state of workforce performance."

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