

How could you use the ergonomic checkpoints for job enrichment in an ‘appreciative way’ in industrial of industrially developing countries?

Faramarz HELALI¹ and Farahnaz DASTRANJ²

*1. Department of Business Administration, Technology and Social Sciences,
Luleå University of Technology (LTU), Sweden*

*2. M.Sc. Occupational Health, International Campus of Shahid Sadoughi
University of Medical Sciences (IC-SSUMS) Yazd – Iran*

Abstract: This paper describes five steps for ‘Appreciative Inquiry’ to purpose understanding from getting to use “ergonomic checkpoints”, in an ‘appreciative way’ including; 1) Definition of frame implementing a phase method for pre-systemic ergonomics intervention work process; 2) Discovery; what are appreciative and active learning, and how it has worked? (The research model) 3) Dream; how vision and voices of the future in industries of industrially developing countries? (The Learner at the Centre) 4) Design; how to give to values and ideals using power “participatory ergonomics process”? (The tactic of pulling) 5) Destiny; how make it happen? (Inspired action and improvisation)

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1. Introduction

It is emphasized that ‘A participatory approach is the most effective and sustainable way to promote and practice ergonomics in developing countries (Budnick et al, 2012, p. 5). The Ergonomic Checkpoints (ILO, 2010/old version 1996) has been developed with the objective of offering practical and low-cost situations to ergonomic problems, particularly for small and medium-sized enterprises (Kogi, 2007).

However, access of organizations on ergonomics knowledge is usually very difficult in industrially developing countries (IDCs) (Helali, 2008). Thus, how building ergonomics awareness and awakening, as well as an awakened need of change to applying ergonomics to work system were certainly the first phase of an intentional learning for a proposed model for ergonomics intervention programme technique process based on the Helali’s study (2008). For this reason, the first author has investigated and noted that the need for paying attention to presenting and applying different ergonomics intervention techniques with three different ‘process phases’ (i.e., Routine task/Pre-intervention, Modified task/Process intervention, and new task/Post-intervention) to industries of IDCs such as Iran (See also, Helali, 2008).

It has noted and empathized that rational behind and the findings of Helali’s study in

2008 that training, awareness, ergonomic intervention are insufficient for the solution to health, safety, and ergonomics issues. For this reason, we need that all levels of the organization should be provided with practical learning as well as reflective practices (Helali, 2008; 2012). Thus, better organizational interactions could be observed based on an intentional learning with regard to implementing ergonomics intervention with macro-ergonomics attitudes (Here means bottom-up approach) and its concept when ‘a concept of macro-ergonomics is seen as human-centered and participatory’ (Helali, 2008, p. 21).

Based on the different evidence and studies since 1996 on using the ergonomic checkpoints (Helali, 2008; 2009) and also a work design for Master project study by the first author, when it was implemented as an interactive research work in 2012 successfully by the second author (Dastranj, 2012).

This paper describes five steps for an appreciative inquiry for how based on establishing the focus and scope of the inquiry for the frame implementing and also ‘reframing’ (i.e., how one can amplify those things that will help a better future emerging from positive present). For this reason that using Ergonomic Checkpoints Book of ILO’ (2010), to purpose one kind of job enrichment methodology was for improving safety, health, and ergonomics in an ‘appreciative way’ (i.e., research can be with company and the participation of people, not only on people or techniques and tools) in IDCs’ industries like Iran. In the appreciative way, in fact, it “starts out from what is actually happening – not from what appears to be happening, or what our initially limited understanding leads us to believe is happening” (Ghaye et al, 2008, p. 371).

Therefore, the research question was, what is the using ergonomic checkpoints book (ILO, 2010) when we want further of here for the expanding of the interactive research work and how can we amplify it? In addition, how will the future unfold an appreciation of the positive present? Thatchenkey (2006) has used the term “future-present” to describe the mindset in which a person is able to see the future in the present, as if bringing the concrete experience anticipated in the future to the domain of the present. These questions could help to us early on to predict major changes in the future with an ‘Appreciative Inquiry’ way (i.e., the Appreciative Inquiry has a 4-D cycle) (See, Whitney and Trosten-Bloom, 2003).

It is mentioned that, ‘by asking positive questions, we give ourselves a chance to create powerful vocabularies of possibility, in particular thinking about the possibility of positively re-experiencing past successes and doing more of what satisfies and achieves agreed goals’ (Ghaye, 2007, p.170).

For this reason that Appreciative Inquiry works treat people like people, and not like machines. People are social. We create our identities and our knowledge in relation to one another. We are curious. We like to tell stories and listen to stories. We pass on our values, beliefs and wisdom in stories. We like to learn and to use what we learn to be our best own. Moreover, we delight in doing well in the eyes of those we care about and respect. Appreciative Inquiry enables leaders to create natural human organizations, knowledge rich, strength based adaptable and learning organizations” (See, Whitney and Trosten-Bloom, 2003, p. 233-252).

2. Getting five steps for an Appreciative Inquiry for reframing ‘Using Ergonomic Checkpoints Book of ILO’ in the appreciative way

2.1 Getting a definition of a pre-systematic intervention work

This is shown in Figure 1 that how the frame has been designed as definition of a phase method pre-systemic ergonomics intervention work process on using Ergonomic Checkpoints of ILO (2010) by the first author. This was as a concept of empowerment as

process (See, Ghaye and Lillyman 2012). It was also the one key factor that first employees must be empowered in order to empower each other. For example:

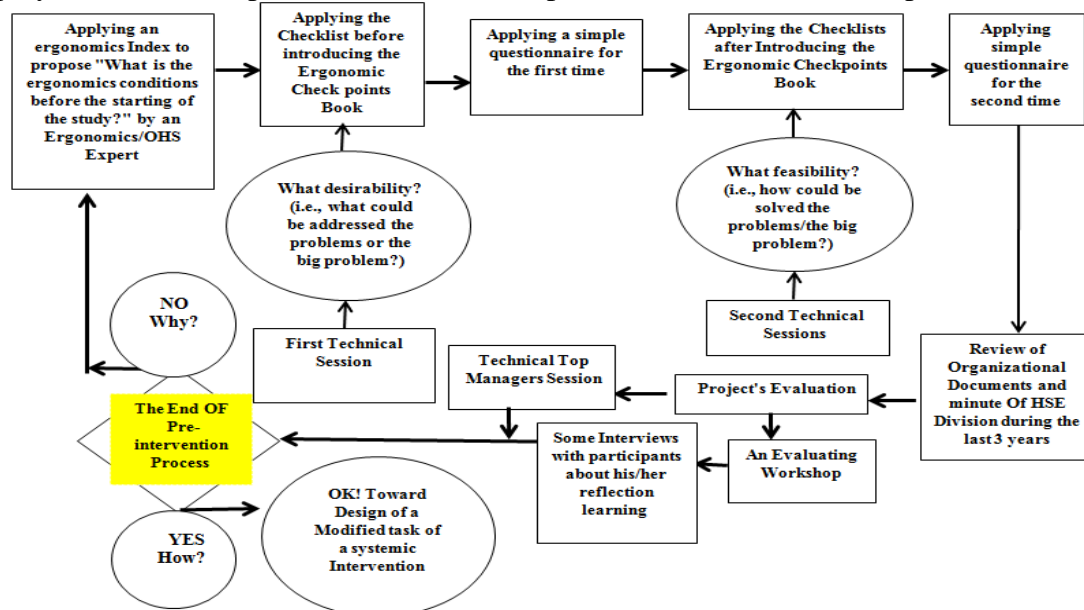


Figure 1: Frame of a phase method Pre-systemic Ergonomics Intervention Work Process

A Case study: This phase method was implemented by the authors at a Pharmaceutical Manufacturing Company as the result of an interactive research work from 2011 to 2012 when the study aim was to create participatory ergonomics awareness and wakefulness at the Manufacturing Company with an intentional learning in the appreciative way. The research question of the study was to the first author that “How should a pre-ergonomics intervention work with participatory ergonomics approach be delivered to the Company (also to the second author) that the participants can easily learn how to use the ergonomic checkpoints for a kind of “job enrichment” and further of here successfully? It was selected 60 individuals from different organizational levels totally; 87% of which were male while the remaining 13% were female. The participants had an average age of 38-years old with the standard deviation of 9.74. They had 11.81 years of service in average with the standard deviation of 9.76. Thus, the technical sessions based on action learning held for the participants lasted for 30, 25 hours, or 1657 man hours, totally. The data of this case study came: 1) studying the action-checklist in two steps before and after using the ergonomic checkpoints, 2) its feedbacks with a simple questionnaire in the two steps, 3) implementing different evaluations and some participants’ reflection learning, and 4) review of the organizational documents were used.

The main results were integrating the aforementioned factors by creating a team of facilitators (the authors were as external and internal facilitators), which resulted in a 0.3 percent improvement in the technical capabilities of the participants and improved their social skills and their interest in participation in the company during the research work. It was an exercise for a pre-systemic intervention work that the detail of this unique exercise became documented as a case study (a manuscript draft paper, Dastranj and Helali, 2014). Further of here, for the expanding and internalization of this kind of research work culture is focused on several industries in Iran now when the second author seen and understood benefit of this kind of interactive research work.

Thus, the systemic process can be characterized based on the different getting empowerment through reflection (Ghaye and Lillyman 2012) when there are the different concepts of ‘awareness’ (here means, understanding without knowing) and ‘awakening’ (here means understanding and also knowing) based on “research model understanding”, “strategic understanding”, “Tactic understanding”, and “Reflection learning” on “organization knowledge” as follows:

2.2 Discovery; what are appreciative and active learning, and how it has worked as a research model?

This could be the second key factors as the getting empowerment as a way of thinking ('a whole way of being'), based on the research model Figure 2. How we think affects what we do. For this reason, "Behavioral Cybernetics" considers human behavior as a self-governed and closed-loop feedback control process (Smith and Smith, 1966). It asserts that humans need to govern their own actions (i.e., self-regulation) and do so through feedback control of the environment. According to behavioral cybernetic principles, individual closed-loop feedback control is necessary for effective performance, learning and development (Smith and Smith, 1966).

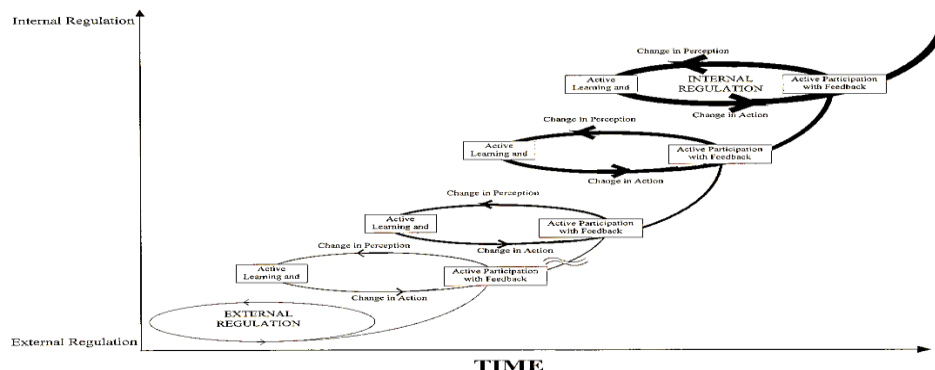


Figure 2: Research Model based on Smith-Smith, (1966) and adapted from Haims and Caryon (1998)

The research model suggests that long-term participatory program/participatory ergonomics can be achieved through a process designed for action, feedback and feedback control for individuals within an organization (Haims and Caryon, 1998). Active participation with feedback leads to enhanced perceptions and understanding of the work environment. The increased understanding allows learning in the continuous technical sessions, which leads to changes in action. These more informed actions represent improved interactions with the work environment or when participants have appreciative negotiation with each other, and thus enhanced feedback control capabilities for further participation, learning and control. As active participation, learning and control grow within the organization, there is a gradual transfer of the participatory program from external regulation by outside expert to internal (or self) regulation by organizational members within the technical sessions with suitable feed backs when the employing events of Figure 1 as a pre-systematic intervention work.

2.3 Dream: How Vision and voices of the future in industries of industrially developing countries as a learner at the Centre?

This could be the third key factors for the getting empowerment as a discourse for understanding psychology learning theories. Example, Vygotsky (1978) believed that the life long process of development was dependent on social interaction and that social learning actually leads to cognitive development. This phenomenon is called the Zone of Proximal Development (ZPD).

He describes it as the distance between the actual development level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers (Vygotsky, 1978). In other words, a student/ participant can perform a task under adult guidance or with peer collaboration that could not be achieved alone (Crawford, 1996). The Zone of Proximal Development bridges the gap between what is known and what can be known of Zone of Proximal Development (Figure, 3) and its Scaffolding Theory (Wood et al, 1976). The external as well as internal facilitators played special

scaffolding covering deliberate learning and learning in action to contribute to participants enrich their own job for this kind of research work.



Figure 3: the Zone of Proximal Development

Therefore, there are different learning theories that Millwood (2013) investigated that “What are the established learning theories?” and also he reported Holistic Approach to Technology Enhanced Learning (HoTEL) that it contributes us. For this reason that there are the different strategic understanding from getting ergonomics intervention conversations to 'Tip' (i.e., to hit slowly), (Helali, 2012) and also the psychology learning theories must be taken into consideration of our ergonomics intervention work in IDCs. Maybe, this kind of project method can be used in the context of constructive, of discovery and emancipatory learning when the learner at the Centre (See also, Millwood, 2013; Helali, 2012).

2.4 Design: how give to values and ideals using power Participatory Ergonomics Process as a tactic of pulling?

This could be the fourth key factors for the getting tactics for intentional learning as learning by doing as action learning and also ‘reflection learning and action’ (Ghaye, 2008). For this reason, there are different tactics as dance of the challenges of involvement by doing (Helali, 2008). Because of, the model of participatory ergonomics introduced by Haines and Wilson (1998) shows the principles of the participatory ergonomics used by individuals to get involved in designing and analyzing work-related problems through the employment of different types of involvement introduced by Brown (2002). Helali’s (2008) study is called as Participatory Ergonomics Process as one kind of supporting for developing the ergonomics intervention techniques. For this reason, with employing Figure 1, all of which create an atmosphere of participants’ learning from each other in the appreciative way that the participants can observe an improvement for their technical and social capabilities and skills.

It could be that this type of involvement taken place in the technical secession. This kind of involvement could aim at cooperation and job involvement, which materializes in the form of an opportunity and idea for job enrichment. It means that by creating an atmosphere of learning, research working with the participants and the company and seeking assistance from external and internal facilitators (as a team facilitator). Therefore, by employing proper ergonomics instruments, the participants' learning capabilities can be improved and lead to their deliberate learning with feedback and reflection learning on their learned lessons (See also, Helali, 2012; Ghaye et al, 2008).

2.5 Destiny: How make it happen as inspired action and improvisation?

This could be the fifth key factors for the getting reflection learning when look at who takes actions and with what consequences? There was the role importance of participants after technical sessions, in during and also in the end of employing Figure 1. For this reason that, the participants with different level organization reply to the some reflection questions and also tell us his or her story, journey, culture, and ‘ballet’ (i.e., a

dance) and what they learn from each other. Thus, the research working can be the better together when there was building positive interface between organizational levels.

3. Conclusion

The five key factors can be significant for the getting to use the ergonomic checkpoints in the appreciative way. This kind of interactive research work will be useful as a proposal to co-workers when you need the improving employees' competences (both technical and social skills), toward 'building creative workplace culture' (Ghaye, 2007; Helali, 2012), and improvement of livelihood in IDCs.

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