An Hypothesis over IF Trainings

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Abstract: *The present article aims to make value of already classical concepts of Complex Systems Theory, such as: entropy, syntropy, emergence, feedback, complementarity. Personal experiences in the field of training have demonstrated to me that this can be regarded as a complex system, in which all specific laws of such can be applied. Comparisons I've made over the years between theoretical models and the real world have shown that we always tend towards models, we never achieve them, but it is important that we set them as targets.*

Key words: training, feedback, complementarity, entropy, syntropy.

In today's world, the speed by which events happen imposes a large variety of information which the training and consultancy companies must provide to beneficiary at the right moment.

My observations refer to my previous experiences in training and consultancy, upon various managers' groups configurations. Most times, their reaction was *I would also like…* or *If only I'd knew…*It was then that I realized that a possibility existed to provide information in due time comparing them against objectives which can change even during the training. It is obvious that classic training refers to the meeting between partners, in which objectives, theoretic structures and practical applications are set out. However, reality has shown that in such moments we can apply a control loop in which, in dynamics, there can be also adjusted objectives, standards, criteria and activities. This means fulfilling several conditions:

1. Interdisciplinary theoretic accumulations of the trainer
2. Various practical experiences
3. Assistant trainer
4. Internet access and access to a data base comprising files in direct connection

with the discussed subject during the trai - ning

Under such circumstances, the training can be referred to as **IF** training because compared to the trainees' needs the covered areas can be as various as possible, taking into ac - count that the necessary resources exist: In - ternet, files, assistant trainer.

The advantages of such experiment which could transform into experience are connected to a series of factors which we can discover throughout the training. If a very busy individual can read synthesis materials or can shave in his car whilst waiting for the street light to turn green, why couldn't we make decisions almost in real time depen - ding on a group's necessities?

The obsession of gaining time is not only the trainee's, but also the trainer's, because the last mentioned one lives simultaneously with the group the experience of finding so - lutions for a problem which just arises. This knowledge adventure needs two partners: the trainer and the team.

IF trainings need successive **GO TO**-s regarding the access to information or appli - cations we have in various occasions: by In - ternet or in the data base.

We can somehow also speak of some **DO** cycles, in which the loop condition in the cycle (the training) can be generated by the feedback obtained from the trainees.

At this moment, we can view training as a complex system, in which we consider the key concepts in the complex systems' theory, namely: the Law of Requisite Variety (Ashby Law), the Feedback Law (Wiener Law), the Entropy/Syntropy Law, the Synergy/Emer - gence Principle (Hacken), the External Com - plementarity Principle.

In the following I will attempt to expla - in the usefulness in applying such complex systems' laws in the **IF** trainings. What does the Law of Requisite Variety actually states? Within a complex system (the training), the variety upon its finalization (output) can be only modified by applying enough variety upon entering the training (input). What I am trying to say is that applying a variety of per- sonal experiences and theoretic components upon a system's input point (in our case, the training), the variety of outputs reflected in the trainees' experiences and attitudes will be large enough so that the contexts in which they'll evolve to make value of their abilities.

From the Feedback Law, in any complex system at least one feedback loop exists. Such loop defines the relations circuit between the system's variables. Can we speak of the exis- tence of the reality in which the feedback law effect can be reflected during training? I'd say yes, given the fact that in the communication dynamics the partners (trainers and trainees) permanently have expectations which can be translated by questions, answers, expectati - ons, and confirmations.

During feedback, it is necessary to en - sure system stability, by the control we must have over ourselves as trainers, over the trai- nees and over the information and experien - ces we transmit. Therefore, it is highly impor- tant to be reactive in our relations with the "class", because a balance should be created and maintained which could emphasize our competencies and could define or improve the trainees' abilities.

Our observations regarding the trai- ning are attempting to also make value of the Negative Entropy Law (Syntropy/Entro - py Rapport), which stipulates that in closed systems entropy is permanently and visibly increasing. In other words, in closed systems

the global evolution tendency is from order towards disorder. It is natural for a training program as complex system to not be a closed system, because the successive feedbacks applied within the system, and also in its relations with other systems contributes to defining such as an open system. Thus, from this stand point we can refer to increasing the system's order by creating connections between the system's entities, so that the results would lead to objectives achievement.

Experience has proven to me that the emergent effect of Hacken (synergy principle) is covered by or included in analyzing trainings as complex systems. Why? It is very simple: grounded on the principle's stating, saying that "the total effect of the interactions and interdependencies in a complex system is non-additive in rapport to local effects, within component sub-systems". The natural question arises: if we define a training program as a complex system, will it have sub-components? Why not? For instance, we can emphasize the accessed files, the trainees' experiences, the accessed applications, etc. From this stand point, the synergic effect is translated by the results valorized by making use of the sub-components throughout the system, and hence on the trainees' level.

Judging a system cannot be made by isolating such, but by placing it in more complex systems (for instance, educational system, social system, information system etc,).

Closely connected to the Feedback Law, we can also analyze the External Complementarity Principle, implying that every system can be evaluated as:

- System which can be submitted to distinct analysis
- Sub-system which must be analyzed within the system in which it is a part.

This actually means that the said system – the training, is part in a higher system, the connection between the sub-system and the system being made by a feedback loop. Let's assume that we refer to the national educational system, which has more sub-systems. In view of the External Complementarity Principle, it can e demonstrated that the sub-system represented by training is a logical and lawful part in the educational system, with the components of which it is strongly connected by numerous feedback loops. In order to finalize this analysis, we must position the sub-system within the system, grounded on elements such as:

- The **real system** – the training, which cannot be analyzed isolated, but in casual correlation with other sub-systems in the educational system;
- The **environment** in which the educational system exists, formed of sub-systems with which the real system is connected on the horizontal, on the vertical or in depth, and the system comprising such (the higher hierarchical system)
- The **external complement**, other sub-systems with which the analyzed system does not have direct relations or with which it has low intensity relations. These can be ignored by the systemic analysis.

The contexts in which necessities for training are defined are very various and numerous expectations can occur. It is clear that satisfying expectations on the organizational level is also the result of the quality and quantity of the resources the organization has. From this point of view, organization (resources consumer) has the interest of valorizing as much as possible trainings, because such educational experiences cannot be repeated, exactly because of the lack

of resources. That is why training and consultancy companies must regard as an opportunity and not as a limit this reality of the contemporary companies. Finally, this is also about the way in which we position ourselves in front of a reality. Therefore, after all **IF** trainings are another positioning type in the trainer's rapports with the companies' availability of allocating their resources in order to train their people. This is why I found that a combination I used to make in informatics between **IF, DO** and **GO TO** can be not speculatively, but demonstratively be covered by the training activity.

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