

Leadership for a mixed team of junior and senior developers

Adrian Vladu

European Master in Software Engineering
Blekinge Institute of Technology,
Karlskrona, Sweden
Email: adrian.vladu21@gmail.com

Abstract—This paper describes the issues which arise from building a team of developers with highly different experience level. The leader has to address the challenge by using the appropriate set of knowledge, processes and tools. Considering the multitude of existent variables, the leader should prioritize the organization vision and connect it to the creative, innovative and often diverging energies of the team members. The emphasis of this paper is on the prevalence of human relations over tools and processes. The effects of experience imbalance on the team behaviour can be reduced from a negative perspective or redirected to a positive result, primarily relying on effective communication and motivators.

I. TASK DESCRIPTION

Imagine yourself as a project manager of a group of eight developers. From these eight, four developers are experienced and mature, while four are young university graduates who have been just recruited.

Describe the effects of imbalance in the experience on the dynamics of team behaviour, and your role as the leader in addressing this challenge.

II. INTRODUCTION

David W. Galenson, in his work “Old Masters and Young Geniuses: The Two Life Cycles of Artistic Creativity”, refers to plastic artists and I strongly believe that similar ideas can be applied to programming and software engineering. As a consequence, software products can be considered as the unique result of an art form. The team members’ creativity and past knowledge can balance each other. That will happen if the development is managed properly, with the leader acting as a middleman between the two molding forces - innovation and reuse.

The ability to achieve a goal, to finish successfully a task can be native or hard-earned. One may innovate successfully at the conceptual level, but it requires a long time of trial-and-error or learning for experimental and solid innovation. The ability to radically innovate can decrease with age, as a person is inclined to self-establish a set of rigid methods and conventions. [2]

“When a situation requires a new way of looking at things, the acquisition of new techniques, or even new vocabularies, the old seem stereotyped and rigid...But when a situation requires a store of past knowledge then the old find their advantage over the young.”

— Harvey Lehman, 1953

Organization definition

Team definition

Team leader definition

Vision definition

The leadership activity relies on probabilities and the fact that, one person, on a given time and situation, cannot be aware of all the factors.

III. ENVIRONMENT

Environment definition & understanding

Team member profiling(outside) - cv, experience, references

Team member profiling(inside) - interview, get to know, priorities, best at, worker type, attitude type. Analyze each team member, using the available formal or informal information: history in the company, results, CV, social and cultural activity. Profile each team member through the personality characteristics. The profiling should be a continuous process, as people change over time. Enabling the process will give a better insight on the current and future actions of the team.

IV. TECHNIQUES USED

Use the initial momentum and excitement to push the envelope. Use the given ability of mentorship to motivate the seniors. Use agile methodologies, because are focused on communication and collaboration, which should easily level up the distance and knowledge between the team components.

Organize trainings held by both of the two parts - the young will give a training on a newly appeared technology and the seniors on existing technologies that they master perfectly

Organize a teambuilding once 6 sprints, considering a sprint of 2 weeks, so that people get to a better understanding of also the social, moral values of the other team members.

Shadowing

Associate a younger developer a senior developer as a supervisor and pillar of knowledge. When the junior is in need of help, the senior will be the first stop when seeking help.

Allocate to the junior developers 20% percent of the time spent at work to learn new things, without any pressure from the leader or management side.

Involve employees to set their own goals, as a team.

Security as a need - always have a peer on whom he can

count on, a junior can feel more secure. It will achieve predictability by delegation. Although the peer may not be in the position to always solve the junior's problem or to direct it in a right direction, it will suffice by giving more confidence.(page 43)

Acknowledge and address the danger - unwanted behavior, of undesired unofficial groups being created or alliances between the team members of same age. In the same time, people are social and gregarious beings, so group formation must not be interdicted or suppressed, only controlled and directed to organization's and project goals.

Competence - break things and then try to put the things together again. It will inspire the juniors and they will believe more in their capabilities and power. Achievement oriented developers. Being a producer doesn't mean you are a good manager, as people are not always full-time producers. (page 50)

People can respond in responsible and productive ways to a work environment in which they are given an opportunity to grow and mature. People begin to satisfy their esteem and self-actualization needs by participating in the planning, organizing, motivating and controlling of their own tasks.(page 72)

Problems: the juniors may not have so many personal constraints like children, marriage, long-time relationships in private life. Seniors may be reluctant and not so willing to spend their entire creative energy on job-related issues. The family may be, for them, on the first plan, unlike the juniors, who may put it first.

V. JUNIORS

VI. SENIORS

VII. CONCLUSION

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- [3] *Harvey Lehman, 1953*