

CHAPTER 5

ROLES OF AGILE COACH

This chapter discusses the role played by an agile coach when getting involved with a team that has begun a transition from working with the traditional software development projects to working with agile software development projects. The agile coach is called with different designations such as “scrum master” when adapting scrum framework or as an “XP coach” when adapting eXtreme Programming methodology in their projects. The working of an agile coach was monitored at his place of work and a formal interview was held with him. The roles played by them, the practices they adopt, the interaction between the customer and the development community, the iteration pressure they faced and the continuous learning that individual coaches had were all discussed during the interview.

The practitioners who work in traditional software development approach stick on to generally one specific role throughout the project period. The developers may be responsible for design / coding, testers are responsible for testing; business analysts are responsible for gathering requirements etc. But, in teams that follow agile software development approach, these organizational roles are not strictly adhered and the members often have to function outside their original boundaries. The developer often plays the role of a tester; the tester plays the role of a quality assurance professional and the like. These roles could be swapped after every iteration that takes fifteen to thirty days time, depending on the size of the project.

In the newly transitioned agile teams, the responsibility of an agile coach may be very challenging. The agile coach has to hand hold the team members in many occasions. The team members may have a good theoretical knowledge, but when it comes to implementing the software on a daily basis, it becomes difficult for them and crucial and they require guidance and support at crucial times.

This was pointed out by one of the developers as, “The process itself is not so complicated, but for the initial projects doing things along the lines of the process is a little bit harder than the process itself...Before the start of the project, the mentor should teach us how Agile (method) works and shape our mindset and make sure everyone knows how to work under the Agile umbrella”. — Prac 2.

According to a team that is practicing scrum, the scrum master is responsible for protecting the team and the process from external source of disturbances (Moe et al 2010; Rising and Janoff 2000). The scrum master should ensure acting as a facilitator while following proper scrum process. XP coach is meant to lead a new team wherein the team members are either new comers or have just made their transition from traditional software projects.

According to a team that is practicing eXtreme Programming, the XP coach leads the team initially and leaves the team at the earliest after the team gets stabilized with agile process. He then monitors the functioning of the team on an external basis. Project managers who have experience in working with traditional software projects and who merely get designated as agile coaches in agile software development projects get confused with the practices pertaining to the agile methods. It is necessary that they undergo suitable training with an agile coach.

The agile coach plays the role of a facilitator or an adviser, as a mediator and as a translator, as an advocate and as a concluder. In the mature

agile software development teams, the roles such as adviser, mediator, translator and advocate are played by any member of the agile team and the concluder role is played by an agile coach with the consultation of the team members. The software development teams will benefit from full time agile coaches who are very much important in helping newcomers on a project to acquire the right orientation (Dagenais et al 2010). The absence of agile coach or the team members not syncing with agile coach could be felt during retrospective meetings. Figure 5.1 represents the roles played by an agile coach in a newly transitioned agile software development team.

Each of the agile coach roles are listed in Figure 5.1.

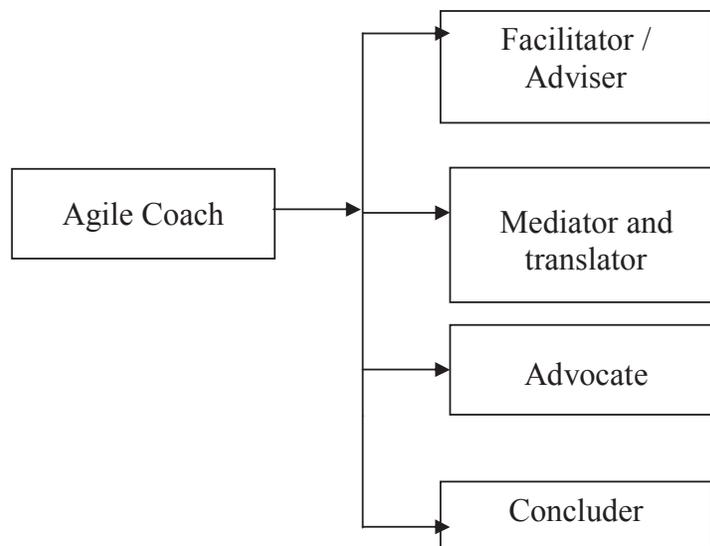


Figure 5.1 Different roles played by an agile coach in a new team

5.1 FACILITATOR / ADVISER / TUTOR

The facilitator advises and supports the team with correct understanding of agile processes. He helps in removing false notions and increases the involvement of every team member. He gives continued constructive support to the members of the team. Figure 5.2 summarizes the role played by the facilitator in a newly transitioned team.

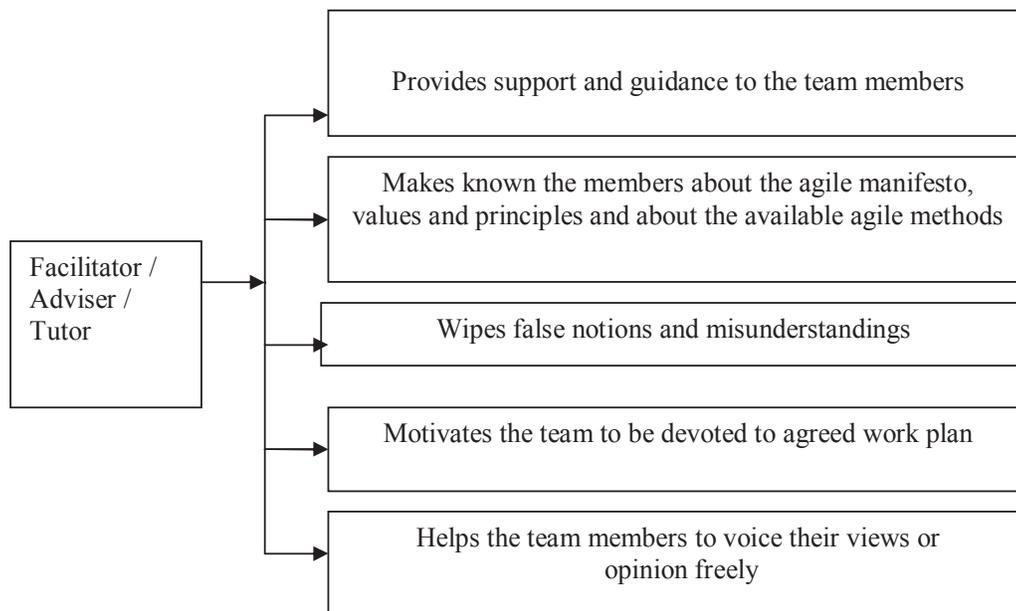


Figure 5.2 Role of a facilitator played by the agile coach in a new team

5.2 MEDIATOR AND TRANSLATOR

The agile coach behaves as a spokesperson of the team to satisfy the customer and makes the customer get involved with the team's efforts. He acts as a translator between the customer and the development community who use business language and the technical language respectively. At times, the translator uses a business – technical dictionary to get an apt meaning. These business terms are directly used inside the code as variable names enabling easy recognition by the customer. In a mature team this role could be played by a development team member with the necessary talents. Some studies have described such individuals supporting customers by translating technical language to business language (Mann and Maurer 2005). Figure 5.3 represent roles played by the mediator.

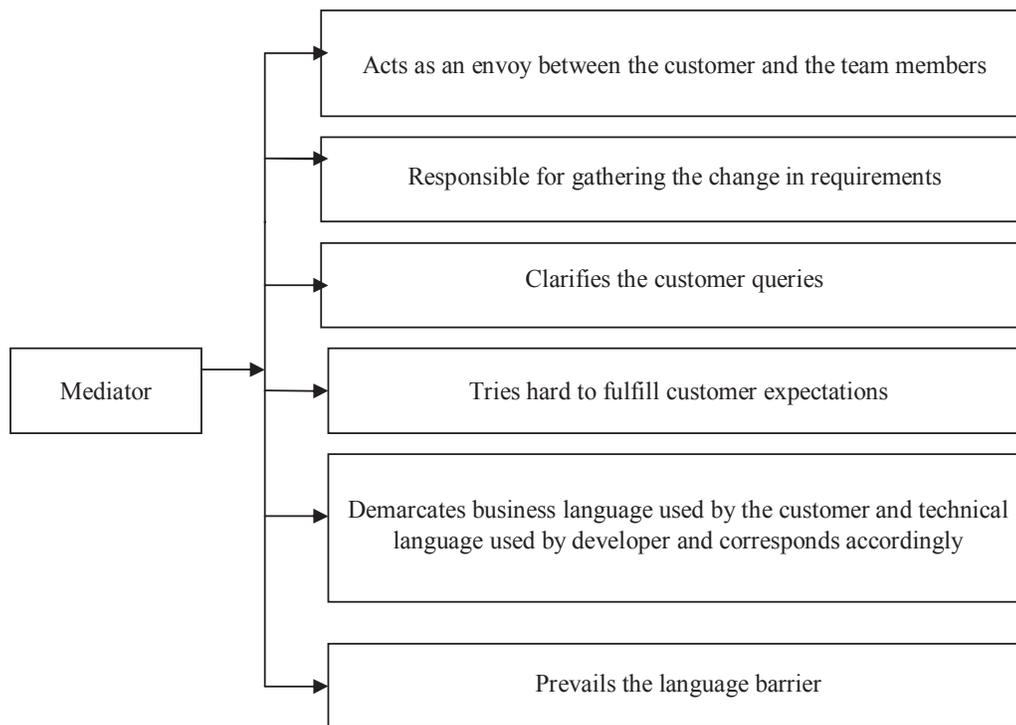


Figure 5.3 Roles of a mediator

Table 5.1 Terminologies used in this section

Terminology	Description	Used by
Technical Language	Uses specialized vocabulary. It will be understandable to the development team	Development Team members
Business Language	The normal English like language, used by a customer in illustrating their requirements to the business analyst.	Customer and the customer representatives

More emphasis is placed on people factors in the project, viz., amicability, talent, skill, communication, collaboration, openness and the courage to give and take feedback as given by (Cockburn and Highsmith 2001). In our research, the practitioners used their own set of criteria and constraint to evaluate how well an individual fits into an agile environment.

5.2.1 Customer Interaction and Role of Mediator on Distributed Projects

The customer should be involved to prioritize the features list. Team members assure continuous delivery of minimum marketable features and continuous feedback should be obtained from the customer as suggested by (Braithwaite and Joyce 2005). When there are several voices of the customer, they should be prioritized and addressed carefully. It is always better to have a single mediator to communicate and collaborate with the customer(s). If the development team is geographically distributed, it is the responsibility of the mediator to make sure that the work has been distributed properly and it is getting completed at the correct pace. This was pointed out by a scrum master and an agile coach on different occasions as, “It is better to have a single person communicate rather than to make entire team speak to the customer” — Prac 38. “We have a customer representative who communicates with the team, passes on the feedback from the customer to the team and vice versa” — Prac 42.

In some of the companies, one of the developers plays the role of a coordinator who is responsible for coordinating with the offshore teams. The coordinator is responsible for getting the customer requirements and their relative priorities. This was pointed out by an experienced developer as, “We did not have team leads when working on offshore projects, but it is always better to have one person who can communicate and that is the role of a coordinator who talks to everybody” — Prac 14.

5.3 ADVOCATE

The agile coach also plays the role of an advocate. The advocate acts as an envoy between the top management and the team. He communicates the essentials of using agile practices. Figure 5.4 illustrates the role of an advocate played by the agile coach with a newly transitioned team

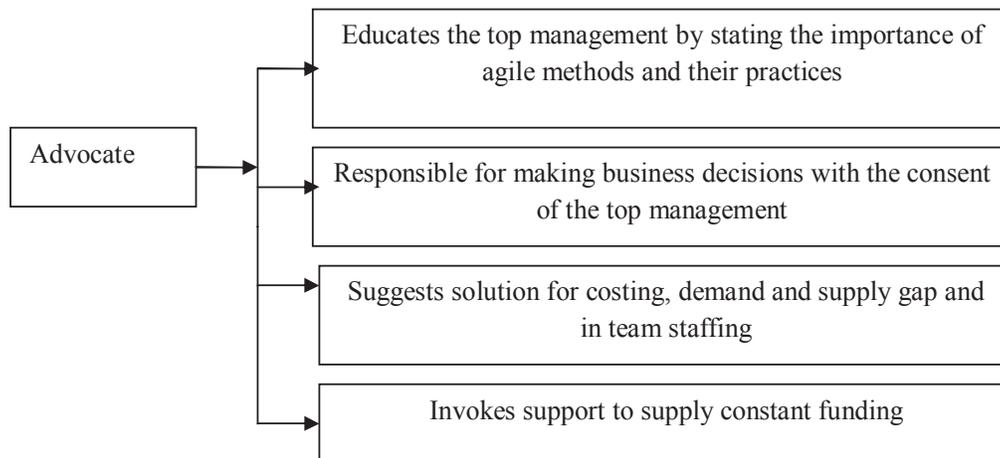


Figure 5.4 Role of an advocate played by the agile coach in a new team

5.4 CONCLUDER

The agile coach who plays the role of a concluder identifies and removes the practitioner who is not dynamic, who does not have the team spirit and who disturbs other practitioners in agile software development with the support of the top management. He is also responsible for placing members on the right tasks based on their caliber. Figure 5.5 illustrates the role of a Concluder played by the agile coach in a new team

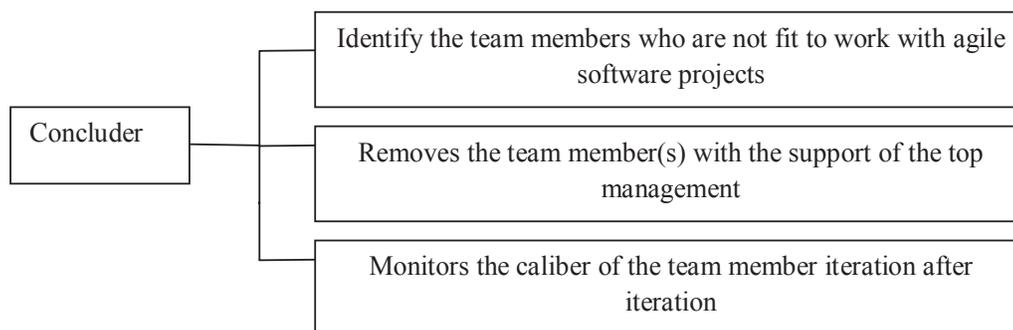


Figure 5.5 Role of a Concluder played by the agile coach in a new team

The Concluder should monitor the performance of the team members on a frequent basis. With the support of the top management the Concluder should

remove non functioning members from the team. The role of a Concluder when compared to other roles of an agile coach is considered to be the toughest.

5.5 ADDITIONAL RESPONSIBILITIES OF AGILE COACH

5.5.1 Motivating the Team

Agile coach will teach the team about the way team members should behave during the project period. Some practices include team participation, choosing self assignments and active participation in the retrospective meetings.

The agile coach plays a vital role in hand holding the team members to plan and estimate. Team members are motivated to get involved in estimating and planning. Project estimation and planning in a traditional software development has been carried out only by the Project Manager. The challenge of an agile coach is to make the team members to transition their mindset from the traditional approach to the agile development approach. This was pointed out by a well experienced agile coach during interview as, “During the initial days of the project, I found difficulty in making the team members learn the new concept and to unlearn the old concept. Many people in our team tried but they were not able to come fully out of the traditional ways, but as days progressed, the team members were able to catch up to the tune. This made them to become self reliant, self motivated and be self organized” — Prac 48.

5.5.2 Reward the Team at Appropriate Moments

When the newly transitioned agile team started working with iterations and sprints, the team will understand and get tuned to the agile practices. The team members will get motivated and will work in a committed fashion when they were given the feel of success. Every small success that they achieve has to be acknowledged and rewarded appropriately by the agile

coach. The team members should be given a letter of appreciation which will be helpful for their career growth. This will make the team to become self motivated, self reliant and self organized. This was pointed out by a scrum master wherein they had a mixed team with most of the practitioners are new to work with agile development approach but have an earlier experience of working with the traditional software development projects. The scrum master narrates his experience as, “The team should be allowed to enjoy the taste of success. Even a small success should be represented with “ta-da” surprise applause. The team member will be happy, if some sort of appreciation and recognition is shown to them. This approach makes the team increase the confidence level and become self reliant” — Prac 51.

5.5.3 Encourage Continuity

During the initial days, it is very difficult to change the mindset of employees who have already worked with the traditional development approach. They will face many issues in terms of learning new concepts. The team members should learn new things and unlearn older style of working. This was shared by a scrum master through his experience as, “It consumes time and energy for people who had earlier worked in traditional environment and are now getting transitioned to agile software development. You can see people coming from traditional, and are into a habit of work which is very hard to leave to start with” — Prac 56.

The coach should encourage the team members in making sure that they integrate the code continuously, make a continuous follow up with customer or customer representatives and make a continuous delivery. When the above aspects are followed the team can be sure of their success and can ensure quality.

In relatively new teams, that has less than a year of experience agile coaches take the lead role and display a firm understanding of both agile

methods and their teams' issues. These agile coaches are often employed on a contractual basis to guide the new team during the initial stages. In more mature agile teams who are fluent in use of agile practices and who have work experience of more than a year in agile development, the role of agile coach is taken up by anyone in the team.

For example, in one of the organizations, most members have several years of experience in agile software development and do not require a full-time coach. Whenever a newcomer joins the team, one of the senior members takes up the role of the coach and helps them become accustomed to the teams' agile practices.

This was pointed out by a scrum master as, "Based on the experience and the knowledge gained, the senior developer has to help the junior developer. They should not have any constraint in pairing with the junior developer. We expect such a collaborative team to work together without any ego or any speed mismatch" — Prac 51.

5.6 PROCEEDINGS OF A CO-LOCATED TEAM MEETING – AN OBSERVATION

Agile coach convened a meeting and asked everyone to assemble at the center of a discussion hall. The meeting was proposed to clarify requirements and to sort out interdependency issues. As a few members have experience in working on agile projects, the agile coach earlier has identified a member to act as a mediator between customer and the team. The mediator was in constant touch with the customer and he had put forth the requirement and certain new features on behalf of the customer. The mediator made the team members fully aware of the customer requirements. Agile coach was satisfied with the level of customer involvement that the mediator had and suggested a few more team members of the co-located team to be in touch with the customer representative as well with the mediator. This showed

the dynamism that team had and commitment to collaborate with the customer in solving problems put forth by the customer. This also shows the voluntary shouldering of responsibility by team members.

5.7 BARRIERS IN COMMUNICATION

Language barrier and communication slang are the most common problems in distributed projects. Development team uses technical terminologies which cannot be understood by the customer representatives. Customer uses business language to put forth his needs which the developer cannot understand fully. There arises a need for translation between the two languages in order to ensure proper communication between the two.

This experience was shared by a developer as, “I explain the customer in the technical language which the customers cannot understand a word” — Prac 20.

The translator role will be usually performed by the business analyst and could be played by anyone who understands the business need and who has a good communication skill. Project history is one of the translator tools available. Agile coach himself may act as a translator or it is his responsibility to identify the translator. Translator should be strong in both technical language and the business language and should be willing to act according to the tunes of the customer and the management.

An experience shared by one of the customer representative is given as, “The team is willing to say “Yes” for all our demands, but, they are not willing to get into the shoes of the customer and think in their perspective” — Prac 41.

The translator should be strong in both technical language and the business language and should be willing to act according to the tunes of the customer and the management.

The newly transitioned agile teams face such problems whereas mature agile team members will be capable of understanding both business language and the technical language.

5.8 TOP MANAGEMENT SUPPORT AND CUSTOMER ACCEPTANCE

Agile coach, usually an experienced person has to convince the top management to welcome transition. One of the agile coaches during an interview has shared his experience as, “Show the top management, a project that has requirement changes. Work for the change in requirements. Show them the result. Get their credits” — Prac 48.

In order to make them believe, a pilot project has to be carried out. In a similar way, in order to make the customer satisfied, the scrum master must run two or three sprints free of cost.

Similarly when a few members of the team are not working properly and when they are not willing to change their mindset, the top management should give powers to the agile coach to remove such members from the team.

The responsibility of agile coach should not stop with the above roles but should also frequently check whether the team is dynamic, active and enthusiastic. If not, the agile coach should be given the privilege to reshuffle the teams.

5.9 RESEARCH FINDINGS AND THE RELATED LITERATURE

Agile development teams have flexible and adaptive leaders for carrying out the tasks as stated by Cockburn and Highsmith (2001); Takeuchi and Nonaka (1986). They are not to be called as uncontrolled or leaderless teams. Anderson and Mcmillan (2003) claim that the leaders in agile team are compared to the captains of sports team because they are responsible for setting directions and align people dynamically according to the situation.

Coram and Bohner (2005) have considered the impact of agile methods on software project management and have described briefly about the role of a project manager in agile projects. They have claimed that the role played by project managers in agile processes is responsible for tracking progress and making business decisions. The challenges involved in roles played by a project manager of traditional projects while assigned with similar roles in agile projects are explained in the article (Nerur et al 2005). The project manager has to relinquish the authority he enjoyed in the erstwhile position in order to obtain better results achievable through agile development. It is our finding that such traditional managers become facilitators, though after a period of hard conscious efforts, enabling an atmosphere encouraging creativity of all members. They also pick up the additional roles of mediators, translators, advocate and concluder.

Belbin (2011) has suggested different team roles. They are team worker, chairman, shaper and coordinator, planted individual, resource investigator, monitor - evaluator, specialist and completer – finisher. The coordinator role according to Belbin's team roles is one of delegating work and our finding confirms the same. A specialist role identified in Belbin's theory, spotlights on a specific area of expertise that values their specialization over team goals. Our findings from the agile teams speak about

their willingness to take on multiple roles as generalists through their special strength in an specialized area is considered to be a point of advantage.

Ancona and Caldwell (1988) has identified roles in terms of improving the interaction with the customer and the team. Roles identified were ambassador, scout, guard, sentry, and coordinator. An ambassador communicates with the external stakeholders and gets the support of them for the team. The scout is responsible for acquiring new ideas and concepts from within and outside the organization. The guard and the sentry roles are responsible in protecting the team from external distractions. Anderson and McMillan (2003) defines the agile development teams as teams that are informal and temporary, that are formed spontaneously around issues, that are not a part of any formal organization structure and that has team members who decide on their own affairs. Our research also indicates that team have similar characteristic of being dynamic and they do not have any hierarchy and the tutor guides and clarifies the team when needed.

Mann and Maurer (2005) have stated that the external individuals support the customers in helping them to translate between the technical language and the business language, whereas our research identifies the translator role being played by the agile coach himself. This does not rule out the possibility of having external sources to provide support in translator's role in special cases.