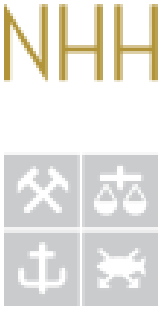

The Impact of Team-Level Norms and Team Charters on the Performance-Trajectories of Work-Teams

Literature Review

Independent work as part of the Master of Science in

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1 Intro

Working in teams is a fundamental part of the conduction of work within modern organizations (Devine, Clayton, Philips, Dunford, & Melner, 1999). The constituting rationale behind organizing work within teams is that regardless of the context, there is not a single individual who knows everything, nor someone who can master anything. In other words, teams can achieve higher results than individuals. Therefore, especially employees within knowledge-intensive sectors such as science, consulting, engineering or research have experienced a large growth of working in teams over the last decades, where especially complex and multi-layered tasks and problems have been increasingly tackled through the establishment of teams (S. Kozlowski & Ilgen, 2006). This is not least the case because globalization and rapid technological change have formed more volatile, uncertain, complex and ambiguous environments, requiring organisations to adapt with more resilient, dynamic and sophisticated solutions (Cockburn & Smith, 2016).

Unfortunately, there are substantial drawbacks inherent in teamwork. People differ along a wide range of individual factors such as e.g. personalities and backgrounds, that can first impede collaboration through various interpersonal processes, and ultimately lead to a broad range of undesired outputs (J. E. Mathieu, Gallagher, Domingo, & Klock, 2019). Evidence from project-management across various industries shows for instance that 14% of projects fail, while increasing interdisciplinarity and cross-organizational work-designs are further factors contributing to team member frustration and sub-optimal results (PMI, 2017). It seems therefore that employees' teamwork skills could not keep step with the rapid increase in teamwork settings. As a consequence, it has been suggested that teamwork skills shall be seen as a primary skill such as reading, writing or maths and thus be more integrated into pre-academical education (Kruck & Teer, 2019). While such a development seems unlikely in the near future, universities have increasingly tried to simulate professional team-settings through the application of team-projects in their curricula (Cox & Bobrowski, 2016). Although their success has been disputed, this can be seen as a first step in the right direction. Yet, more has to be done in order to prepare young people for the realities of their professional lives.

Until then, practitioners have to work with the knowledge and resources that are at hand. Fortunately, and in accordance with the increasing relevance of teamwork for professional contexts, also the amount of academic research on teams has been strongly increasing over the last decades. By doing so, numerous topics have been addressed and developed, covering a broad range from "compositional features" such as e.g. diversity in a team's *demographics* and *personalities*, over more "structural features" such as e.g. *leadership*, *task-design*, *virtuality* and *interdependency*, to "organizational influences" such as e.g. *empowerment* and the spanning of *boundaries*, and lastly

"mediating mechanisms" such as e.g. *conflict-management, information-sharing* or *trust* and *cohesion* (J. E. Mathieu et al., 2019). Yet, there has been surprisingly little focus on the unfolding and development of these various factors and processes over time, and even less focus on how particularly early events in a team's life cycle might substantially determine its subsequent performance trajectory. This is even more remarkable, as there has been promising initial evidence of the large reverberation such early events may have on a team's further progression (Ericksen & Dyer, 2004), as well as with regard to the fundamental role the formation of norms might play in this context (Bettenhausen & Murnighan, 1991; Gersick, 1988). Consequently, this early phase of team development will be investigated in this thesis.

Precisely, the impact of both early established norms as well as of creating a team charter on a team's performance trajectory will be investigated. While norms relate to the "*standards for behavior that are expected of group members*" (Carron, Hausenblas, & Eys, 2005, p. 173), team charters relate to "*an explicit, written document, offering guidelines, rules, and policies governing the behavior of team members*" (Norton & Sussman, 2009, p. 7). This will be done by systematically summarizing the existent literature on the two topics, as well as discussing the close relationship between the two, as for example through the norm-triggering, norm-strengthening and uncertainty-reducing effect team charters can have on a team's norms on the one hand, as well as through the various preceding effects a team's norms can have on the creation and content of a team charter on the other hand (cf. Pilette, 2017). The research question is consequently two-folded, comprising the following two questions:

RQ I: How do early established norms impact the performance trajectories of work-teams?

RQ II: How can team-charters be used to improve the performance trajectories of work-teams?

Consequently, this thesis pursues a practical approach to increasing teamwork quality. By studying the literature on two powerful instruments orchestrating teamwork, namely team-level norms on the one hand, as well as team charters on the other hand, as well as the relationship between the two, valuable insights into the organisation of teamwork shall be given both to researchers as well as practitioners. The thesis does consequently contribute to the existing literature by summarizing as well as synchronizing the literature on the two concepts, investigating their relationship to the performance of teams over time, revealing insights about how the underlaying mechanisms of the two concepts can be utilized for improving results, as well as by revealing gaps in the literature that need to be addressed theoretically or empirically in the future. To the best of the author's knowledge, it is the first literature review of this kind, and does not least answer corresponding calls for this kind of research.

As a first step, the theoretical concepts of the included variables will be discussed, i.e. the concepts of teams and its paramount categorizations, as well as norm and team charter theory. Second, the research strategy as well as its validity and reliability will be laid out, together with a brief overview of the included articles, their approaches, and the applied inclusion-criteria. Third, the articles and their results will be laid out in detail and categorized fashion within the analysis part, before elaborating the review's findings together with recommendations for future research in the discussion part. It is shown that more corresponding research could bolster existing evidence, as well as provide insight into various unaddressed topics in a field of tremendous potential. As a last step, the findings are summarized within a conclusion.

2 Theoretical Background

2.1. Teams

2.1.1. Definition of Teams

First of all, the term "*team*" applied in this study has to be defined. Precise definitions are fundamental to display the researcher's understanding of a research subject, as well as to determine the scope of a research project. According to an article by Steve W.J. Kozlowski and Daniel R. Ilgen from 2006 about "*Enhancing the Effectiveness of Work Groups and Teams*", a team can be defined as "*two or more individuals, who socially interact (face-to-face or, increasingly, virtually), possess one or more common goals, are brought together to perform organizationally relevant tasks, exhibit interdependencies with respect to workflow, goals, and outcomes, have different roles and responsibilities, and are together embedded in an encompassing organizational system, with boundaries and linkages to the broader system, context and task environment*" (S. Kozlowski & Ilgen, 2006, p. 79). They establish this definition by drawing from a multitude of contributions over a timeframe of almost 30 years, in which the understanding of the term has broadened and the knowledge and amount of research have been increasing. Although it seems to target all conceivable dimensions of a team, such as the number of group members, the tasks, goals, interdependencies, roles & responsibilities as well as its embeddedness in an organizational environment, its comprehensiveness might be too strict for the purpose of our study. This might on the one hand be the case because the factors of roles and responsibilities, as well as a team's boundaries, i.e. the differentiation between members and non-members, might be more "blurry" today (Mortensen & Haas, 2018). Further, it might cover too narrow of a scope for the broad range of teams included in this research, such as e.g. student project teams.

Therefore, a more elastic definition from Leigh Thompson from Kelogg School of Management at Northwestern University seems more applicable. In the book "*Making the Team – A Guide for Managers*", teams are defined as *"a group of people who are interdependent with respect to information, resources, and skills, and who seek to combine their efforts to achieve a common goal*" (Thompson, 2018, p. 4). This definition might be particularly adequate because it does both leave more space for the wide scope of included teams within this study, as well as it does not stress more flexible factors of modern teams, such as the roles and responsibilities or a team's boundaries too much. Further, it differentiates between the intra-individual factors of information, resources and skills on the one hand, as well as the inter-individual processes of "combining efforts" to achieve a superordinate goal on the other hand. As the question of how this combining of efforts is impacted by early established norms, as well as the question of how creating a team charter can be used to improve this process represent the global topic of this thesis, this definition seems more applicable. It will thus be used to underlay this study with a common understanding of teams, as well provide a factor for the inclusion of articles later on.

2.1.2. Team Development

As a next step, and due to the importance of the time-component in our research question, the fundamentals of team research on changes within teams over time shall be laid out. The idea that teams follow a certain path of development as they are aiming at their common goal is well-established in team research literature and has been reflected through numerous theoretical contributions and empirical studies over decades. Team development can be defined as as "*the changes in team processes and emergent states that occur over time in a team*" (Peralta, Lourenço, Lopes, Baptista, & Pais, 2018, p. 99). While named team processes are the interaction patterns that evolve between members, such as e.g. communication, conflict resolution, problem solving, goal-setting and performance management, as well as task-coordination and planning (qv. Fraser, 2009), emergent states describe constructs that "*[…] characterize properties of the team that are typically dynamic in nature and vary as a function of team context, inputs, processes, and outcomes" (Marks, Mathieu, & Zaccaro, 2001, p. 357)*, such as for example the factor of team-level "*trust*" or "*team climate*" (Waller, Okhuysen, & Saghafian, 2016).

The earliest and most widely cited model of team development is from Tuckman (1965), who introduced the sequential stages of "forming", "storming", "norming", and "performing" (Tuckman, 1965). In creating this model, the author himself already built on 50 previously published articles of

small group development. Additionally, by adding the factor of "adjourning" in 1977, the author introduced another stage of team development that accounted for the termination phase of teams (Tuckman & Jensen, 1977), which is also addressed in numerous models of similar nature. Schematically, "forming" refers to the formation phase of a team, including the first meeting and other orientational behaviors (such as e.g. initial conversations about the task and how to approach it). "Storming" refers to a phase where team members try to find their place in the team and contrary behaviors and views may lead to interpersonal fraction and conflict. "Norming" in this model describes the eventual overcoming of these challenges and the establishment of an in-group feeling and cohesiveness, while within the "performing" stage the team is task-focused and well-functioning. Similar propositions have e.g. been made by LaCoursiere (1980) with the stages *orientation, dissatisfaction, resolution, production and termination*, as well as by McGrath (1984) through the factors *of generate plans, ideas, and goals; choose & agree on alternatives, goals, and policies; resolve conflicts and develop norms; perform action tasks and maintain cohesion* (McGrath, 1984). One can therefore state that the idea of a gradual procession through different stages between establishment and dissolvement is commonly shared and accepted.

According to Peralta et al. (2018), the numerous frameworks that have evolved can be assigned into two broad categories, namely one that follows an integrated stage approach and one that follows a punctuated equilibrium logic. While the integrated state approach emphasizes "*temporal changes in team processes and emergent states that occur along both task and interpersonal-related dimensions*", punctuated equilibrium approaches focus more on macro-level factors such as a team's time awareness, task-progression and the according task activities (Peralta et al., 2018). In other words, while the former approach focuses on changes over time within various team processes, the latter emphasizes which kind of taskwork is done at which time as well as concomitant environmental factors such as time or performance pressure. Since empirical research by Chan (Chang, Bordia, & Duck, 2003) finds evidence that for some team's development both models might be equally relevant, the two approaches can even be seen as complementary. The choice which model is more appropriate to researchers and practitioners must therefore be made according to the specific case – defining which bundle of factors between the two perspectives might be more relevant.

On the side of practitioners, the right choice of model might e.g. be decisive when determining which team developmental intervention (TDI), i.e. "*actions taken to alter the performance trajectories of organizational teams*" (Shuffler, Diazgranados, Maynard, & Salas, 2018, p. 2) should be applied at which point in time and for what reasons. These TDIs can be seen as measures to push teams forward within their development, or to prevent or counteract detrimental team processes. As team interventions such as e.g. "*training"* and "*coaching"* are frequently applied in parallel to the prescription of a team charter, knowledge about these approaches is also of high importance for this

thesis. While training can be considered as "*set of theoretically based strategies […] to enhance and maintain team performance under different conditions*" (Cannon-Bowers & Salas, 1998, p. 254), coaching refers to "*direct interaction with a team intended to help members make coordinated and taskappropriate use of their collective resources in accomplishing the team's work*" (Hackman & Wageman, 2005, p. 269) As a result, training can be seen as the initial TDI to make team members familiar with the concept of team charters, while coaching serves more as means of maintaining and re-enforcing what was learned through training. Within the specter of regarded articles, such TDIs have been particularly common within the educational sector, i.e. for example among student teams of different backgrounds (e.g. engineering, health-care or business). Yet there are strong arguments that such charter supporting TDIs are just as relevant for professionals. Therefore, not properly understanding these TDIs and the models they build on, would diminish the value of elaborations and discussions of conducted research within this thesis.

On the side of research, as well as for the direct purpose of this thesis, it seems that both streams of team-development literature are relevant in some cases. On the one hand, some studies measure the impact of a charter on specific team processes as a first step, while studying the team members' rating of these processes as mediator for ultimate team performance afterwards. In this case, an integrated stage approach would for example fit better to highlight the observed effects. Further, generally interpreting the data from various studies under consideration at which point in time it was acquired, and thus calibrating at which developmental stage the majority of included teams might have been at that moment according to an integrated state logic, might be enriching for discussion and interpretation. By contrast, it is among other factors also the study of the impact of early established norms on a team's further progression which has been fundamental for the establishment of the punctuated equilibrium approach itself (cf. Gersick, 1988). Within these studies, a specific point in time of a team's life span is detected, where members' efforts get aligned for collective task achievement, while also the negative effects detrimental team-level norms can have on a team' performance trajectory are pointed out. In such a situation, applying the diametrically opposed approach to team development (i.e. an integrated state approach) would be counterproductive and contradictive. Therefore, it depends on the context of each study which theoretical foundation will be applied, and their respective findings will be evaluated correspondingly to the degree that it contributes to the objectives of this thesis.

2.1.3. Team Temporality

When talking about team performance *trajectories*, as the research questions implies, there is a substantial time-component besides the final outcome of a project included (which might e.g. be a report, a presentation, or comparable results that finalize one period of working within a team). While

this final performance can of course be crucial, the path to this result has been under-researched and might be much more revealing than just scrutinizing team input factors and final outcomes - as it would be the case when applying an IPO logic. Especially, since the impact of early events in a team's life cycle might be stronger in the beginning and eventually fade out or be overcome by other events and happenings, such a perspective is indispensable for the purpose of this study. Also, increasing effort has been made to shed light on this factor of temporality, as e.g. contributions by Li & Roe (2012) describing 17 different possible team process trajectories consisting of 3-moment patterns each show. Together with numerous forms of teams and seemingly endless development processes existing, it is crucial to determine through which key factors teams actually differ with regard to this dimension and what this implies for the aim of this study.

According to a model by Bradley, White & Mennecke (2003) developed to categorize effectiveness studies of team-interventions, the two main dimension of temporality are task duration and team duration. This is reasonable, as one can expect that team interventions might be varying in effectiveness according to each of these four different situations. In the same way as the authors do find evidence that the findings of such interventions' effectiveness are much more consistent through such a classification, one can assume that the impact of early established norms as well as charters might be different for teams across the four quadrants. Examining them according to this logic could therefore raise the consistency of the research-field in total. While such a comparison is not the main focus of this research, it shall be kept in mind to avoid the comparison of different contexts, and to draw the right conclusions. Additionally, this two-dimensional framework of task- and team-duration does harmonize with the general two-sided logic of taskwork and teamwork predominantly applied in team research. Consequently, it improves our understanding of the research subject and sharpens our lens to analyse and contextualize it.

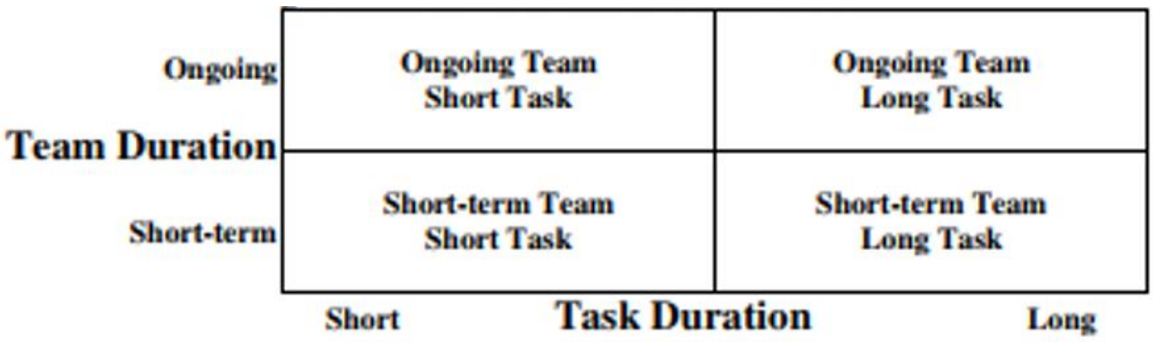

Figure 1: The Team/Task Duration Framework after Bradley, White & Mennecke (2003)

The difference between ongoing and short-term teams lies primarily between the expectations of the team-members that the team will dissolve after its task is completed or not. In case that these teams do expect the team to be dissolved after task-completion, teams are considered short-term within this model. On the other hand, for teams to be considered "ongoing" they have to both not expect their dissolvement after task-completion, as well as to work together for an "extended" period of time. This makes sense, as also many small tasks can be given to a team throughout a short period of time, which would make their marking as ongoing counterproductive. It is therefore argued that ongoing teams do always possess a history and a future of interactions (disregarding their task-duration), and are consequently more susceptible to norm-strengthening and norm-refining team interventions.

Task duration on the other hand can be whether short or long. While short-term tasks are usually considered as lasting hours or days, long-term tasks include all tasks that exceed this timeframe, such as weeks, months, or years. It is also stressed that it is not project-duration per se that is meant, but much more the time that the team spends interdependently together on the task. This situation is given if the subtasks are directly related to the main task, as for example when in software development the data provided by one team member must be operational for another member to build on it. By contrast, if there is no interdependency between the subtasks and the main tasks, the time spent on the subtasks cannot be aggregated to the general team task duration. One such example could be the coverage of a certain component of a potential outlet market within a market analysis or a project presentation, where the customer segment's specific attributes within a region might not be related to the political risk of market entrance, covered by another team member. Yet, each contribution might be part of the same report or presentation. In such a case, the sub-tasks would have to be considered as non-interdependent. Although It is certainly a fine line between interdependent and non-interdependent subtasks, and evaluations would have to be made based on the single case, it is the general logic that shall be stressed at this point. Further, in many relevant cases within this research the interdependency might be salient or self-explaining, as e.g. within engineering teams or health care.

An example for short term / short task situation would be so called swift-starting teams, such as for example teams of pilots, where tasks do regularly not take longer than several hours and one can expect the dissolvement of the team after task completion. An example for short team / long task situation would be student teams that dissolve after the project-completion over the run of one semester. These teams are frequently used for empiric research due to their high availability. An example for ongoing / short task situation would be the personnel within private doctor practices, that treat patients efficiently and might work in the same constellation over years. Finally, a situation of ongoing team / long task situation could be software development teams, that work on wide-ranged projects on a consecutive base. As it comes to the purpose of this thesis, namely

to review the literature on the impact of early established norms and team charters on their performance trajectories, it can be expected that teams of all sorts might be represented in the data. Therefore, to ultimately draw the right conclusions, overview over which case of team- and task duration is present within a respective study, is crucial.

2.1.4. Taskwork & Teamwork Processes

A tremendous amount of both initial and recent research on teams has been conducted following an IPO research principal, referring to the consecutive factors of “input”, “process” and “output”. Following this logic, researchers calibrate one or more given characteristics of a team as their independent variable, such as e.g. composition, structure or leadership, and subsequently relate their observations to one or more dependent variables of interest, which may e.g. be performance, satisfaction, conflict or learning. While moderators or mediators can be included, the question of *how* exactly these processes manifest themselves over time through member-interaction and cooperation are usually not emphasized within such research. The focus is on the causal relation, while the underlaying processes are not investigated in detail.

Over the last decades, there has been increasing focus on exactly these processes, and one widely accepted logic of categorizing these processes is to differ between taskwork and teamwork processes. Particularly building on theoretical work by Marks, Mathieu & Zaccaro (2001), teamwork describes all activities that a team fulfills in order to organize and coordinate the taskwork, which itself is described as "*a team's interactions with tasks, tools, machines, and systems*" (Bowers, Braun, & Morgan, 1997, p. 90). The teamwork processes consequently orchestrate the way in which the taskwork is done to collectively attain the desired output, or as the authors describe it: “*Taskwork represents* what *it is that teams are doing, whereas teamwork describes how they are doing it with each other*” (Marks et al., 2001, p. 357). Undoubtedly does the nature of the taskwork also limit the degree to which teamwork processes can format it, for example through determining the degree of interdependency of a task as well as through limiting the number of subtasks it may be divided into. Nevertheless does distinguishing between the two represent a much applied cornerstone of analyzing how work is organized within teams, and is ultimately crucial to discuss numerous studies as well as the context of this thesis.

Additionally, the authors argue for a taxonomy of teamwork processes that assigns them into 3 different categories, namely “*transitional*”, “*action-related*” and “*interpersonal*”. While typical transitional teamwork processes are e.g. “goal specification” or “planning“, typical action-related processes are e.g. “effort-coordination” and “monitoring”. Examples for interpersonal teamwork

processes on the other hand include “confidence building”, “affect-management” as well as “conflict management”. Building on this typology, it is theorized that the organization of work within teams can be modelled as several tasks it has to fulfill simultaneously throughout its existence, and that each task is an alternating sequence of action-related and transitional phases, where the output of the previous phase renders the input for the succeeding phase. While the action-related and transitional teamwork processes are primarily relevant in their corresponding phase, interpersonal processes are theorized to be evenly distributed over the whole task-period. The durations of the phases do vary both within and between the simultaneous tasks of a team, and the authors are thereby rendering a highly relevant and high-resolution framework for discussing and understanding teamwork-processes.

Since the impact of both norms and team charters on the performance trajectories of work teams might be higher through the channel of teamwork processes than through their effect on taskwork, this framework is of high relevance for the discussion of articles as well as for answering the previously stated research questions. While it is not said that certain norms and charter provisions might not also impact taskwork, as for example by denoting provisions about how the interaction with software, databases, communication portals etc. is to be conducted, their main impact as well as the focus of this research is on the impact on team performance through teamwork processes. Therefore, both taxonomy and “rhythm” of teamwork processes, as well as its delineation to taskwork are necessary to define the research field as well as to understand and contextualize the findings of this review.

2.1.4. Team Performance

As the next step, the primary outcome variable of our research question, i.e. “*performance*”, shall be discussed in more detail. Generally, while the term of “*team effectiveness*” refers to the degree to which a team meets the various expectations set into it by a surrounding organisation, the factor of “*team performance*” relates to the question whether the output of a team is in accordance with the standards applied to it, as for example in terms of quantity or quality (Aubé & Rousseau, 2011). In other words, while team effectiveness is the umbrella term for a multitude of different dimensions that a team might be expected to adhere to (such as e.g. “team learning”), team performance refers directly to the extent that a team’s work meets the organisation’s standards used to rate it. Consequently, team performance can be considered as one of a multitude of dimensions of team effectiveness (qv. Sundstrom, McIntyre, Halfhill, & Richards, 2000), and since the actual output of a team’s cooperation might in most cases be the component of highest interest, it is also the most applied measure of team effectiveness (J. Mathieu, Maynard, Rapp, & Gilson, 2008). By some

researchers, it has also been seen as constitutional for the definition of teams, as their purpose is to produce something that is useful to the organization (Argote & McGrath, 1993).

Surprisingly, there has been less will to establish common measures of performance as compared to the other factors of team inputs and team processes, following the fundamental IPO logic of team research. This might be rooted in the strong context dependency of performance measurement. Different sectors, organizations and projects do require different measurements. Yet, a lack of consistency implies also a broad variety of measures that have been used. Therefore, these have been categorized into measurements of "*Organizational-level performance", "Team performance behaviors and outcomes", "Role-based performance"* and *"performance composites"* (J. Mathieu et al., 2008). First*,* measuring performance at organizational level implies the aggregation of the performances from several lower-level teams into the performance of a whole company or department, as e.g. measuring the turnover of companies using a certain strategy for their sales teams would imply. Yet, the direct causal link between team-level factors and organizational performance is difficult to establish methodologically without sacrificing a certain amount of validity.

Second, measuring "*team performance behaviours and outcomes*" is conducted on the team level and usually requires some kind of rater, which can whether be a supervisor, superordinate manager, or an external client. These judges subsequently rate whether the *behaviours* of a team, such as e.g. process improvement or a team's levels of proactivity in "*looking for better ways to do something*", or the *output* of a team, such as e.g. the quality of a team's customer service (qv. Kirkman & Rosen, 1999). Unfortunately, even though one can counteract rater-bias by including several raters with common rating guidelines, there is always a component of subjectivity involved. Third, team-role based measurements focus on the degree to which team-members exert the required competencies for task-fulfilment, not least to provide a measure that might be comparable across different studies. Yet, there are questions at which point in time team-members can be expected to act in accordance to their roles, and when this is to be measured as a result. Finally, performance measures that are designed as composites use weighted scales of different factors to provide a more nuanced image of a team's performance. One example of this approach would be by Van der Vegt and Bunderson (2005), who combined the factors of "efficiency", "quality", "overall achievement", "productivity", and "mission fulfillment" to a single performance-measuring index. Yet, these approaches are time-consuming and the question of what it actually is that is measured becomes blurry (Van Der Vegt & Bunderson, 2005).

Within the scope of this study, it is primarily the second category that is relevant. Raters serve as judges and evaluate the output of a project. In some settings, such as e.g. when student teams have to fulfil tasks with clear standards for the distinction between good and bad performances, such as through right-or-wrong tasks or correctors measuring a team charter's completeness, a high degree of

reliability for measuring performance can be established. Similarly, but more discrete, in some studies supervisors inform about the performance of a team by some sort of survey, report, or grade. Alternatively, and particularly in the case of ongoing teams, performance might e.g. be evaluated by well-proven department-level or tailor-made team-level performance composites. Fragmentarily, also elements of organizational performance measurement are included, while some studies apply a miscellaneous performance measurement strategy. The attribution to one of these categories is therefore to be seen schematically, and not as a clear distinction. Because there is such broad variety in the measures applied in the relevant studies, the way that researchers dealt with the question of how to measure it will be laid out when discussing each study. This is of particular importance as measuring performance over time might require all the more sensitivity to this crucial topic, as it is aimed by this study.

Although the impact of norms and team charters on team performance over time is the main emphasis of this study, there are also relevant studies applying a category of effectiveness outside the scope of performance. These measures can be summarized in a category that has been labelled as "*member's affect and viability*" (J. Mathieu et al., 2008). Measures within this category include e.g. the concepts of team member satisfaction or team viability. Team member satisfaction generally refers to the degree that member's expectations are met, and can be expected to decrease with members' levels of frustration stemming from working in a particular team (Rockmann & Northcraft, 2010). While it can generally be targeted both at teamwork and task related variables, within the scope of this thesis it is usually targeted whether at teamwork aspects, or overall satisfaction with working in a particular team. Applied survey items are often adapted from well-proven satisfaction measures such as job-satisfaction, and formulated as Likert-scaled questions such as "*I am satisfied with how my fellow group members and I worked together on the exercise*" in the case of teamwork, or through questions such as "*All in all, I am satisfied with my team*"" when aiming for overall satisfaction (E. M. Stark & Bierly, 2009). Therefore, also in the case of measuring satisfaction does the single case and context determine what exactly is measured, which will be laid out when discussing each study separately. This is not least required because the affectual nature of the concept prohibits external and more standardized ratings such as within classical performance measurement to a large degree.

The concept of team viability has been explained as the degree to which team members want to remain a member of a team, the degree to which they want to work in the same team again, whether they have a sense of belonging, as well as simply team member stability over time (J. Mathieu et al., 2008). Since members that are satisfied with working in a certain team can be expected to also have an inclination towards working together for a longer period of time or on another project in the same team, the concepts of team member satisfaction and team viability can be considered as related. Accordingly, measures of team viability can include questions about satisfaction levels with the overall

teamwork experience (Bushe & Coetzer, 2007). Yet, the numerous definitions named above have also been argued to be representative for the vagueness of the concept (Bell & Marentette, 2011). Additionally, since numerous other variables have been included in the category of team viability, such as group member satisfaction, team climate, commitment and group cohesion (Balkundi & Harrison, 2006), also the borders to other concepts such as emergent states seem to be dissolving. This vagueness involved when using affectual concepts in measuring team effectiveness can therefore only be counterweighed by researchers precisely defining and delineating them. Therefore will studies using these concepts only be included if this is clearly the case, as well as if they can be regarded as related to team performance in a wider sense. Since such a positive relation has been proven for team member satisfaction (F. Li et al., 2009), and also team viability can be seen as a *"marker of future team performance*" (Bell & Marentette, 2011; Hughston, 2014, p. 28), widening the scope of this thesis to these types of studies seems both legitimate and appropriate for answering the research questions.

2.2. Norms

2.2.1 Definition of Norms

After elaborating the general context of our research question, that is the factor of teams, team development, team temporality and team performance, the factor of norms and its relevance for team settings shall be put under scrutiny. Generally, social norms are powerful and often underestimated forms of social control without the force of laws (Ehrhart & Naumann, 2004). Early conceptualizations such as from Sherif (1936) in *The Psychology of Social Norms* described norms as as "*customs, traditions, standards, rules, values, fashions, and all other criteria of conduct which are standardized as a consequence of the contact of individuals*". While this definition already stresses the action-directing and interpersonal nature of norms, it might have covered too wide of a scope both for the term itself, as well as especially for the context of team-interaction. Consequently, more narrow definitions have evolved over the past decades, and have been echoing through the field-specific literature of team-research ever since. Respective definitions often stress norms as a measure or benchmark for calibrating the appropriateness of behavior, such as Raven and Rubin (1976), who described social norms as "*standards against which the person can evaluate the appropriateness of behavior, […] providing order and meaning to what otherwise might be seen as an ambiguous, uncertain, or perhaps threatening situation*". Similarly Haas & Drabek (1973) and McGrath (1984) referred to norms as expectations among group members about what is "*ought to happen*", and Argote (1989) summarized these efforts through referring to norms as "*expectations about appropriate behavior for system members*". More recent definitions focus even more on the informal nature of norms, as well as on the implicit agreement among the group members constituting them, such as

Cialdini & Trost (1998) who describe group norms as *"guidelines for acceptable and unacceptable behavior that develop through interactions among group members and are informally agreed on by group members*" (Cialdini & Trost, 1998). For the purpose of this review, which is to inform about the status quo of research on the starting phase of teams, we will apply another recent definition of norms by Carron, Eys & Hausenblas (2005), who in short and precise manner defined norms as the "*standards for behavior that are expected of group members*" (Carron et al., 2005, p. 173). Applying this definition renders space for including both informal as well as formally stipulated norms (such as e.g. within charters), and is therefore considered the most appropriate.

2.2.2. Functions of Norms

As a next step, a closer look on the functions of norms shall be taken. Generally, a team operating without norms is hard to imagine. Some of the mentioned definitions already point out essential functions that norms fulfill in social interaction within groups or teams. This includes aspects such as the reduction of uncertainty and ambiguity, or the provision of security about appropriateness. According to Feldman (1984), norms have four types of functions, namely the ensuring of group survival, increasing the predictability of behavior, avoiding embarrassing interpersonal situations, and expressing the group's central values. Further, in fulfilling these functions, group norms have the potential to contribute substantially to task and team performance, which is why understanding them can render value to businesses, and has made them subject to numerous previous research (Argote, 1989; Patterson, Carron, & Loughead, 2005). One possible example of how norms can contribute to the performance of a company could be research about organizational citizenship behavior (OCB), where a group norm about helping other team members beyond what employees are obliged to do could raise a unit's total level of OCB - whose positive impact on performance has been well established (Ehrhart & Naumann, 2004). Applied to Feldman's typology of norm-functions, this norm of helping other team members beyond what is compulsory could secure a team's survival (as non-performing teams are not likely to prevail in the business world), increase the predictability of behavior (as team-members could rely more on obtaining help if needed), avoid embarrassing interpersonal situations (as e.g. the rejection of help between team-members could induce), and contribute to expressing a team's central values (as e.g. cooperativeness). Although empirically untested, this application of Feldman's norm functions theory shows how companies can potentially benefit from understanding the functions of norms. The actual mechanisms through which norms operate will be further discussed in the following chapter about norm-adherence.

2.2.3. Norm Adherence

Preceding the question of how positive norms can contribute to a team's and business's success through the multiple functions that they fulfill, the question why people actually feel such a strong need to adhere to norms must be targeted. In Norm formation in social influence networks, Friedkin (2001) emphasizes two pioneering researches that investigated this question, namely Sherif's Psychology of Social Norms (1936) as well Festinger's Social Comparison Theory (1954). Implementing an experiment where applicants were exposed to optical illusions, Sherif demonstrated how individuals' estimations of the apparent movement of a stationary light converged towards a certain point in group settings when exposed to it together under mutual rating insight. When exposed separately, estimations of the light movement between individuals differed much stronger. Remarkably, after probands were informed that the light in fact was stationary, estimations of light movement converged less again in group settings, due to the reduced uncertainty and less resulting need for socially resolving it. Similarly, Festinger's Social Comparison Theory postulated that people generally assume that there is a way of responding "correct" in situations of ambiguity and uncertainty through "feelings, thoughts or actions", both for them and for others, and that through social comparison – i.e. finding cues for correct behavior within the sphere of others - people internalize the attitudes of others. What consequently unifies both theories is the alignment of individual evaluations with others in order to react appropriately to environmental requirements. As such, this need for "turning to others" in order to reduce ambiguity, uncertainty and complexity, can be seen as direct antecedent of norm formation, as it was also stressed by Kenneth Bettenhausen and J. Keith Murnighan in The Emergence of Norms in Competitive Decision Making Groups (1985).

As mentioned in the definitions part, norms are social control mechanisms that direct human behavior. More precisely, they do operate by whether approving norm-consistent, or disapproving norm-inconsistent (i.e. "sanctioning") each individuals behavior, thus serving their social functions. Although it is commonly agreed upon that norms are a group-property (S. W. Kozlowski & Klein, 2000), the required degree of approval among team-members required for a norm to be valid is controversial. It has been suggested by Carron et al. (2003) that an approval rate of 50% determined for a shared belief to be existent within a group (Carron et al., 2003), while Patterson et al. (2005) later extended this minimum approval rate for shared beliefs also to norms (Patterson et al., 2005). Even though these efforts were primarily made for methodological reasons, they can be seen as cues in determining a minimum requirement. Similarly, the concept of norm strength aims at describing to what extent group members agree on a certain norm as "the way things are done here", and therefore represent a collective expectation (Jackson, 1965). Following this concept, the degree of a team's unanimity regarding the implementation of a norm (as e.g. cooperation) determines a certain norm's strength

within a group. Further, it is fundamental to not confuse the concept of norm strength with a norm's level, which rather describes to what extent an individual or a certain amount of group members engage in a particular behavior. This means that while all group members could unanimously agree on *not* cooperating with each other more than required, and therefore constituting high norm strength for the norm of cooperation, individuals in this team would still exert little to no extra-effort in helping each other, thereby showing a low level of the norm "cooperation". Simply speaking, a strong norm for a certain behavior does not automatically imply that a certain behavior is more enacted, as it can also be a strong norm for *not* engaging in something (Ehrhart & Naumann, 2004). Yet, the social sanctions for deviating from the norm might nevertheless be equally high.

2.2.2. Types of Norms

After explaining the functions norms fulfil and the mechanisms through which they operate, different types of norms shall be outlined. This is not least necessary, as fragmented perceptions between group members about what constitutes a group's norms adds even more complexity, and since individuals might not only adhere to what they believe are socially approved behaviors within a group, but also adhere to other behavioral instances (such as personal norms and values) (Cialdini, Reno, & Kallgren, 1990). The first differentiation follows a distinction between *descriptive* norms and *injunctive* norms. *Descriptive* norms are building on imitation of behavior by other group or team members, thereby reducing the risk of disapproval, following a simple "*When in Rome, do as as the Romans*" behavioral strategy. It is a voluntary adjustment of behavior built on imitation, and non-compliance will rarely be met with sanctions. By contrast, *injunctive* norms are much more based on the conditioning effect of reward and sanctions, and are therefore more prescriptive (Cialdini et al., 1990; Stray, Fægri, & Moe, 2016). *Subjective* norms are those norms that a single team member regards as being held by group members important to her or him, which does not necessarily have to be the case in reality. *Personal* norms are beliefs inherent within the individual that a certain kind of behavior, such as e.g. conscientious working, are important. Those norms are difficult to be changed in a group context, as they might be based on long-term previous experience or even upbringing (Cialdini & Trost, 1998; Ehrhart & Naumann, 2004). Although it conflicts with our previously established definition of a norm, it shall also be mentioned that certain norm definitions include the possibility of *idiosyncratic* norms, i.e. a norm that is held by only one team member (Friedkin, 2001). This might be the case merely because a group member believes that a situation requires a specific "appropriate" response. This exception will be outlined where necessary for holistic understanding of a discussed topic or article. As a next step, the fundamental question of how norms arise within a team shall be discussed, before turning to the third large topic consitutional for our research question, namely team charters.

2.2.3. Emergence of Norms

To understand the impact of team-norms on the performance of teams, also their emergence has to be properly understood. A starting point is rendered by Gersick and Hackman (1990) discussing the concept of habitual routines, who share similar functions with norms such as the reduction of uncertainty for a team in encountering external stimuli. Suggesting three different ways in which habitual routines can arise within a group, namely by (1) importation, (2) creation at first encounter or (3) gradual evolution over time (Gersick & Hackman, 1990), it is primarily the latter two factors that will be discussed at this point, while the factor of importation, i.e. the case where team members follow routines that they "*did not themselves develop*" yet "*know how they are supposed to operate*" (Gersick & Hackman, 1990, p. 75) will be dealt with through studies in the analysis section (cf. Ginnett, 1993; Zijlstra, Waller, & Phillips, 2012). This is not least reasonable since these two factors can be much more influenced by both team leaders and team members, while surrounding environmental conditions are given and can therefore only be "addressed".

The two models of norm emergence discussed at this point will be first by Bettenhausen and Murnighan (1985), and second by Ehrhart and Naumann (2004). According to Bettenhausen and Murnighan (1985), the initial phase of a project usually runs from the corporate authorities' commitment to establish a team for a given task until the end of the first meeting. Although in practice some team members might know each other from working together before, it is reasonable in an idealized model of norm-formation to assume that most team members are not acquainted. Accordingly, field-specific research has paid attention to keep familiarity between team members low, and increasing interdisciplinarity in the modern business world adds further relevance to this. Consequently, one can assume that there has been no time to form norms before, and the newly formed teams start with blank sheets.

Yet, launch meetings might not be entirely new to the elected team members. Consulting agents, software developers, architects, lawyers or business students are very likely to have experienced project teamwork before. Therefore, each individual is likely to have memories that serve as a reference point, or as cues, for what is likely to happen at the first meeting. Additionally, it is hard to imagine that individuals do not mentally prepare for a meeting, especially for the first meeting of a project. Therefore, whether actively or subconsciously, team-members will make certain assumptions about two things, namely about the *definition* of a situation, and about the corresponding *scripts* (Bettenhausen & Murnighan, 1985), which set the stage for the subsequent establishment of norms. While the definition of a situation refers to its social context, that is how to approach and interact with other team members (e.g. regarding the degree of formality), as well assumptions about how team-members see and perceive the situation in the wider context that it is embedded in, scripts refer to

expectations about the succession of events or a certain way of approaching a task. While the sum of these expectations might subsequently serve as an anchor for rating and categorizing other team member's actions and are consequently fundamental for the formation of norms, there are 4 initial scenarios that can be conceived for teams building on this two-dimensional typology.

In the first scenario, both members' definitions and scripts are in accordance. Therefore, communication runs smoothly, and also assumptions about how to approach the task blend well with each other. That does not imply that there are no initial uncertainties, but these are quickly resolved and the group can quickly proceed to task-related activities. In scenario 2 team-members have similar scripts, but lack a common definition of the situation. This is conceivable as team members might have had similar project experiences before, but in different contextual environments. In this case, members have to resolve this discrepancy to strive for a common understanding of the new situation. An example could be a new working field or a new group of clients or project-champions, while the actual experiences with and expectations about the task are overlapping. In scenario 3, project team members definitions of the situation are congruent, and interaction runs smoothly, yet there are conflicts in members scripts of how to proceed and tackle the task, requiring the development of a group-based understanding of it. One can assume that the common definition of the situation might facilitate the production of shared understanding, but as varying scripts are more severe obstacles to team-work, this might still be a time-consuming process – that can also lead to conflict later on in a project, if a teams' members withhold their perspectives. In scenario 4, a shared understanding of both dimensions has to be established, representing the most craving situation for project teams.

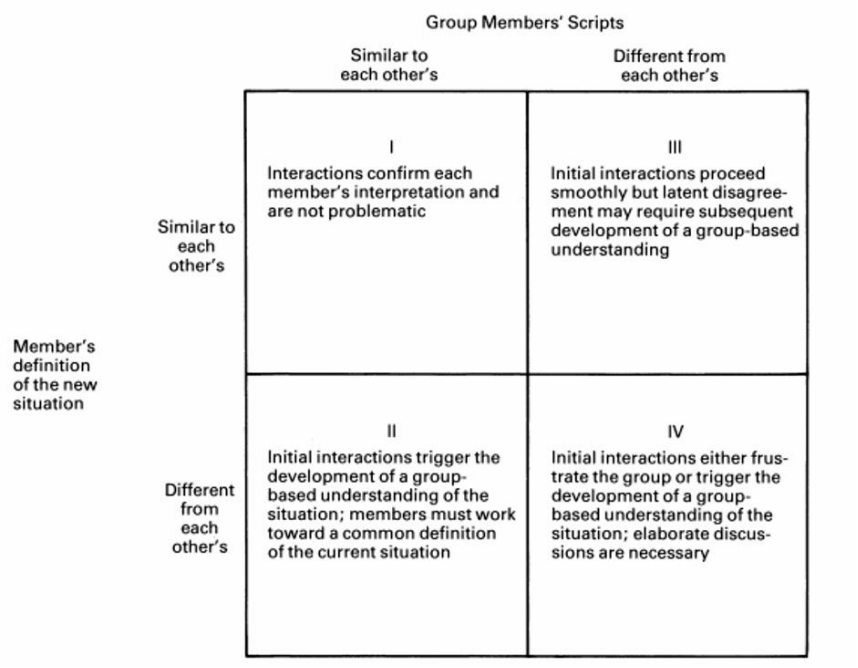

Figure 2: Team Member Scripts and Definitions of Initial Meetings (Bettenhausen & Murnighan 1988)

Following Festinger social comparison theory, in an initial interaction, each individual's acts get observed and serve as a potential role-model for the other group member's own succeeding acts. Therefore, the participating group-members "*become actors for each other*", while iteratively switching between actor and observer position in the discussion. Group members constantly compare the information drawn from others' contributions with their own scripts and definitions, and subsequently align their behavior. Consequently, members can generally choose between affirmative action, try to pull the group toward their own interpretation, tolerate discrepancies with one's own scripts, or as a worst case withdraw (Bettenhausen & Murnighan, 1991). In this iterative process, overlapping and repeatedly occurring patterns of action and agreement build the basis for the group's norm of their future interactions. As implied by the previously introduced taxonomy, the more initial congruence there is between members definitions and scripts, the less enduring this process will be.

Further, Bettenhausen & Murnighan (1985) especially stress one scenario where initial, superficial agreement might lead to smooth operations of a group on the beginning, while initially concealed differences in the actors scripts will eventually lead to conflict within groups. The authors do so by applying a bargaining game with varying power constellations between 5 group members and one privy game leader, measuring the time it takes for the group to reach an agreement as well as the shares the group attributes to one or more of the strong members, i.e. group members that are in a better bargaining position than others. One example of such a a bargaining power constellation would be (A>B>(C=D=E)). Four sessions were held with 12 rounds of bargaining within each of them, where the theoretical distribution of a 100.000$ pool of subsidies for interdisciplinary research was determined, and each group member represented the head of one department. Therefore, a situation of coopetition was present, and only a certain pre-specified number of coalitions would be accepted for paying out the amount, while the specific number each member would get was to be negotiated.

Dividing the groups into *increasing* or *decreasing*, according to how competitive and therefore bigger the shares of the strong members in the run of a session developed, as well as a time-component according to how long it took the groups by average to come to agreement within the first session (i.e. *impetuous* or *deliberate*), the authors conducted both quantitative and qualitative analysis that found evidence for the propositions embedded in the model as well as for the elaborated explanations. This is reasonable, as the time required for reaching conclusions in the first sessions could both show quick mutual understanding or dissonance that needs to be resolved, while the further unfolding of events could disclose if these implicitly assumed or explicitly discussed and agreed upon norms were persistent or not. Further, in this context the authors refer to "*threats*" as a certain group member's actions suggesting changes in the previously agreed upon strategy by making norm-uncompliant offers in the run of a game. These could then either be dismissed and therefore reconfirm the established

norm, or get applied by the group. The fact that group members can show their willingness to deviate, by making an offer that is also simply observable to researchers, makes bargaining games a proper method of investigating norm establishment and persistence in a constrained but efficient way.

The second model of norm formation by Ehrhart and Naumann (2004) is built on a cyclical logic of group norms. As a consequence of the complex and multi-channeled interplay between intra-individual and group-factors, Ehrhart & Nauman state 26 propositions of causal relationships, including moderators and mediators, that together represent the framework. While the full model is depicted below, only the core relationships between the group and the individual shall be given at this point. Although the model was initially developed for explaining unit-level organizational citizenship behaviour norms (OCB), the fact that it does so by building on group-norm theory makes its depictions and indications also highly relevant for the context of teams. Therefore, and for reasons of readability, the following paragraph will occasionally forego speaking explicitly of OCB-norms, and just refer to them as norms.

According to the model, individual norms get influenced by group-prescribed norms (a) directly and moderated by the norm strength, and (b) indirectly through subjective and personal norms, which are itself impacted by group norms through the moderating variable of attraction to the group (in the case of subjective norms), and the identification with a group (in the case of personal norms). This is reasonable, as only members attracted to the group will pay attention to what kind of behavior the members they perceive as important will value, as well as since personal norms will only be touched if the group member also identifies with a group. Yet it shall be mentioned that the personal norms – as explained – could also be in conflict with the norm in question (e.g. someone very competitive), or that the member might bring a long list of other valued norms into the group. For the case of norm strength, it is also reasonable to assume that the degree of group-agreement to a norm (not the extent of the behavior) might exercise more influence on the individual than a norm of low strength.

As a next step, the interplay between descriptive norms, i.e. norms that are induced and followed by imitation and not conditioned through approval and sanctions, and individual OCB shall be described. According to the model, the impact of descriptive norms on individual's exerted OCB is moderated by 7 factors. On the one hand there are 6 positive moderators, which include (1) self-monitoring, i.e. the degree of alertness or attention an individual pays to social cues of behavior, (2) the factor of similarity to group members (e.g. demographics or personality traits), (3) attraction to the group (i.e. the degree to individual wants to meet the behavioral standards of a group), (4) situational uncertainty (i.e. the degree to which insecurity about appropriate behavior sparks people turn to others looking for cues), and (5) the degree of social interaction (and therefore how salient a norm is to the individual), as well as (6) norm strength (as consistent behavior is more likely to be copied). All the above factors are

mentioned to positively moderate the impact of descriptive OCB norms on individual's level of OCB behavior. The only negative moderator described is the factor of (7) status, as group members of high status are usually more allowed to deviate from expected behavior than group members of low status (Hackman, 1992).

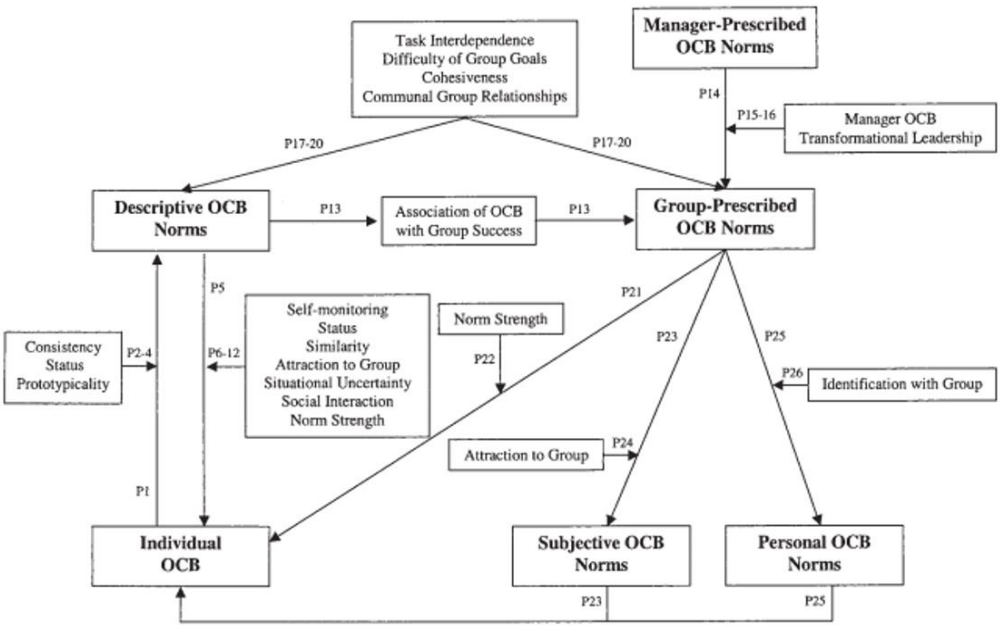

Figure 3: Model of Group Norms for Organizational Citizenship Behaviour by Ehrhart & Naumann (2004)

In the other direction, representing the impact of individual OCB behavior on descriptive group-level norms for OCB, the impact is moderated by three factors of which all are positive. First, it includes the level of consistency that an individual engages in a behavior – meaning that other individuals do not get "mixed signals" from the acting group member. Secondly, actions of individuals with higher status will have more impact on the formation of descriptive group level norms, disregarded what the source of this status is (e.g. contribution to group success, charisma). Third, the factor of individuals' prototypicality, i.e. "*the degree to that […] an individual differs more from outgroup members and less from ingroup members*" (Turner & Haslam, 2001, p. 41) will also positively moderate the relationship between individual behavior and the formation of descriptive norms. Lastly, whether descriptive norms will form into group-prescribed norms will be mediated through a norm's contribution to group success. This last point is decisive and shall therefore be made clear by an example.

To prove the point and in order to argue for a broader application and investigation of this model, a generic example might be chosen to explain the previously described impact channels. Imagine an architecture office in which a team of architects has their working place in the same room and can generally see each other. Imagine that one employee starts asking all other team members for feedback after each draft he finishes, before he formally presents it as his contribution to a project in

a meeting or uploading it to the team's database. He is sincere in his intentions and believes that his contribution will improve through the short feedback he gets. Also, he does so every time he finishes a draft (i.e. consistency), he is one of the most capable and popular architects in the team (i.e. status) and that he in many ways corresponds to the typical team member with regard to demographics and personality (i.e. prototypicality). According to the model, it is consequently likely that after a while other team members might do the same, which is reasonable. Particularly if they are low in status, attracted to the group, have a tendency to self-monitor themselves and because they maybe just got recently added, might be unsure of how to behave (i.e. situational uncertainty). Further, assume that other colleagues have started doing the same (i.e. norm-strength) and that he or she is generally similar to the other group members according to socio-demographic dimensions. The model consequently proclaims that only if this descriptive norm will be related to the group's success over time, it will be turning to a group-prescribed norm that is demanded and sanctioned. Although untested, this is a reasonable assumption.

Although the model consists of a quite complex structure, it appears to be fairly applicable in implementation. Further, the complexity pays tribute to the multi-layered interplay of contextual, group related and intra-personal structure of norms, which a comprehensive model of norm generation and norms in general must address. Further, it provides numerous moderators and mediators that influence these relationships, which all have their legitimacy to be included. Unfortunately, some of these influential factors are vague in their descriptions and lack a common theoretical basis. For example, similarity is a vague concept, and the authors scant elaboration of it does not compensate for that. Nevertheless, the model does provide ample opportunities for quantitative testing, whose results are yet to be seen. This must also be borne in mind when comparing this theory to Bettenhausen & Murnighan, who by contrast complement their theoretical work with empiric investigations. Although the directions of influence in norm generation are more precisely elaborated, there is no reliable data yet to support it.

2.3. Team Charters

2.3.1. Charter Definition

After discussing constituting factors of teams and team-norms, and before elaborating on the respective literature, the factor of team charters shall be put under scrutiny. According to Wilkinson and Morgan (1998), a team charter is "*a written document describing the mission of the team and how this mission is to be accomplished*" (Wilkinson & Moran, 1998, p. 355). This is a wide definition of team charters, as one might interpret the second part in a way that implies the existence of a figured out task-solution already at the time of charter-establishment, and not just the agreed upon cornerstones

of collaboration on the path towards achieving a team's defined goals. One might therefore raise the question which part of a task besides implementation there would be left for a problem-solving team, once a charter is created. By contrast, Norton and Sussmann (2009) define team charters as "*an explicit, written document, offering guidelines, rules, and policies governing the behavior of team members*" (Norton & Sussman, 2009, p. 7). This definition focuses more on the normative, teamwork-orientated nature of a charter, though it lacks the task-related dimension that is also included in charters, as the "mission" part in the previous definition suggests. Therefore, we will apply a definition that merges both aspects of charters, i.e. both the team- and taskwork dimension, and already anticipates parts of their functions. This definition by Hunsaker, Pavett and Hunsaker (2011) refers to a team's charter as "*explicit agreement among a team of individuals in a written document that specifies the team's mission, goals, performance agreement, evaluation standards, and methods of discipline, in addition to making explicit previously implicit reciprocal social obligations and emotional commitments*" (Hunsaker, Hunsaker, & Pavett, 2011, p. 128). Although this precise definition focuses much on task-related components, it is regarded as the one most balanced, and shall consequently be applied. As a next step, the process of establishing team charters shall be explained in more detail.

2.3.2. Charter Establishment

As charters are meant to structure a team's collaboration throughout the whole process of a project, it is self-evident that they can contribute most when created early in a team's life cycle (cf. Cox & Bobrowski, 2000; Wilkinson & Moran, 1998). A team's launch meeting or first encounter might therefore render a proper occasion for establishing, or at least starting to elaborate on the charter. The need for a team to create one at all might be further dependant on factors such as the size and criticality of the project, as well as the degree of familiarity and interdependency between the team-members (Norton & Sussman, 2009). Obviously, in cases of larger and more complex projects with higher needs for coordination and low familiarity between team-members, the establishment of a charter might be more critical than for small-scale, routine tasks. Alternatively, the establishment of a charter might be required by management, whether for reasons of accountability, or higher performance prospects. Consequently, project-charters may be especially useful for newly-established teams, that will collaborate on a complex task over a long enough time-frame to weigh off the costs of initially establishing it (Wilkinson & Moran, 1998).

Nevertheless, the creation of a charter can also be reasonable for well-established teams, be it for reasons to improve team-effectiveness (cf. J. E. Mathieu & Rapp, 2009), or to increase liability between team members (Johnson & Horn, 2019). Entrepreneurial teams that have worked together for a long time, but have been facing conflict in working together recently, might just as much benefit from charters as boards of directors, regulating both their internal and external behaviour (Norton &

Sussman, 2009). Moreover, a charter is typically produced by all team members under mutual consensus and equal hierarchic power (Deane, Clark, & Young, 1997), as each member is voluntarily committing himself to the guidelines established within it. It can therefore be a longer lasting, iterative process, where agreement is only reached gradually, and unresolvable differences or serious concerns about the reached agreements are mentioned in a charter's supplement (Byrd & Luthy, 2010). Further, charters might be continuously adapted along the lifespan of a team, as learning increases and gets integrated into it. These adaptions are then remarked by the consecutive version of it, mentioned e.g. within the title (Wilkinson & Moran, 1998).

While charters are as explained typically produced at arm's length between team-members, and usually render them a wide scope of action, some teams might have limitations from higher-ranking instances imposed, regarding the task-approach (e.g. the mission), intra-group interaction (e.g. companywide communication-standards) or contextual factors (e.g. collectively-bargained labor agreements). These restrictions might therefore restrict the team's scope-of-action in designing the charter (qv. Norton Jr & Hale, 2012). Alternatively, these surrounding factors might be negotiated between the team or certain members of it, and the project-champion or management initiating it. Moreover, since charter-creation becomes increasingly unpractical when reaching a certain team-size, certain team-members can be appointed in charge of its establishment, thus representing the gross of team-members (cf. Schilling & Hill, 1998).

2.3.3. Charter Rationale

The fundamental rationale of a team charter is that creating one makes aspects of working in teams explicit that are otherwise only implicitly assumed by team members (Hunsaker et al., 2011). Yet, uncertainty about these usually unwritten aspects can lead to substantial inefficiencies both on the side of taskwork as well as on the side of teamwork processes. With regard to taskwork, defining the problem and creating a shared understanding of it is considered as one of the most difficult parts of all project-work. Agreeing on a problem-definition, the goals that shall be reached as well as laying out potential alternatives of achieving them, can confront teams with fundamental challenges whose resolving might otherwise take as much as half of the scheduled project-duration (qv. midpoint-transition), or even lead to dissolvement and consequent project-failure (Gersick, 1988). Further, even teams that do believe that the group has created a shared strategy, but does not write it down, might eventually have to accept that this conviction was more based on imagination than it was on reality (cf. Bettenhausen & Murnighan, 1985). One might in this aspect also point out the educative aspect of a charter, where a shared understanding of a task between all team members is created through the actual process of coming to an agreement about e.g. the mission, the problem-definition, the motivation or the goals of a certain project (Wilkinson & Moran, 1998).

On the side of teamwork, it is obvious that different working-behaviours within the team are a major source of conflict, and that discrepancies between team-members' expectations towards working with each other and the realities of teamwork result in considerable process-loss at best, or severe inter-personal conflict at worst (Deane et al., 1997). The major rationale of writing a team-charter on the side of team-processes is therefore to overcome these obstacles to success by outlining process-related definitions, rules and procedures, that shall both forestall the occurrence of major challenges later on, as well as render predefined ways to handle them in case they occur despite this effort (Cox & Bobrowski, 2000; Johnson & Horn, 2019). In addition, teams are also well-advised to do so based on numerous studies demonstrating and advocating for the positive effects of this underrated and underapplied tool for effectively starting and managing working in teams. Before turning to these studies, the functions of charters both on the side of team's task as well as on the side of teamwork processes shall be elaborated in more detail.

2.3.4. Charter Functions

As a next step, the various functions team charters can fulfill shall be laid out. Charters exert their influence by addressing team-relevant topics, thus creating a shared understanding of the task as well as potentially establishing beneficial behavioural norms (qv. Asencio, Carter, DeChurch, Zaccaro, & Fiore, 2012). Therefore, the more precise a team can define these various topics, the more useful a charter may generally be. Yet, as the scope of included sections in charter templates varies within academic literature, as well as since inclusion or non-inclusion of these topics is dependent on each team's concrete arrangement of it in practice, discussed points are not to be seen as an exhaustive list or as a "*best-practice*" prescription. It is much more aimed to give an overview of the most frequently adressed topics, as well as their respective functions. This is done by drawing from a multitude of sources, as well as by turning first to the functions on the side of a team's taskwork, and second to the functions on the side of a team's teamwork processes.

On the side of a team's taskwork charters can fulfil the function to lay out and delineate the task of a team as well as the context that it operates within. Initially addressed topics could e.g. be the broad subject of team's task (e.g. a retailer's online store) to identify the area of interest, or a problem statement to create a shared understanding of why the team was actually formed. An example could be that complaints about the functionality of a company's online-store's payment-process have drastically increased over the last year, or that a survey of its customers showed insufficient satisfaction with the invoicing process. Further, it could be delineated which organizational goal shall be met with this team-effort (Wilkinson & Moran, 1998), as for example "*creating first-class shopping experiences*" for an online retailer could be the case. Within this example, defining the organizational target might seem simple, but answering this question might e.g. be more difficult for projects within

non-governmental or not-for-profit organizations, who can be more diffuse in their organizational goals. Universities implementing digital solutions for their students might for example face questions and trade-offs between how educative or enjoyable a course should be, and projects within a hospital setting might e.g. have to decide whether the organizational goal of a project would be to increase the quality of patient care or total patient turnover. Not targeting which organizational objectives shall be met, teams may therefore face severe challenges already early in their life-cycle.

Based on these steps, the function of stipulating a team's mission is to establish a shared understanding about what the team "*intends to do*" (Hughston, 2014; Hunsaker et al., 2011; McDowell, Herdman, & Aaron, 2011). Ideally, it could be based on the data included within the problem definition, and show the direction of the corrective action the team wants to implement or recommend. Following the logic of the given example, a team's mission could therefore be to speed up or facilitate the payment process, or to find ways to improve the web-page's payment facilities. Ideally, the mission should therefore be quantifiable, and the degree to which it has been accomplished possible to be tracked along the way. This could for example be done through scanning the average time of the payment-process, although the degree to which this is conductible is strongly dependent on the task-nature. In its function to state the direction a team will go in order to fulfil its task, the common statement of the mission within the team-charter can therefore be seen as crucial step in aligning team-members' perceptions of how to approach it.

Yet, not only the mission within a charter shall be quantified as much as possible. Stating measurable results is considered the most important function of a team-charter's objectives part as well (cf. Cox & Bobrowski, 2000; J. E. Mathieu & Rapp, 2009; Peterson, 2007). While the mission shall first and foremost serve to establish agreement about the direction of a team's actions, the objectives or goals part does usually demand the definition of measurable outcomes. It consequently refers more to what shall be achieved as a final result, as e.g. raising the mean overall satisfaction with the payment process above a certain value, or to limit the complaints per period under a certain level. Undoubtedly, the functions of the mission and the objectives within a charter do somewhat correlate, but since it is the process of getting to an agreement during a charter's establishment that leads the team-members to consult about the task and generate a shared understanding, this correlation does not have to be detrimental. Quite the contrary is the case, as it can be seen as a sign of a charter's consistency if they do correlate without overlapping, and together produce a consistent picture of a team's task.

In addition to this "directional" task-work, comes the written notion of team-members' estimations of risks and obstacles to a successful result, as it is demanded by several team-charter models. As a great share of teams does not take the effort of creating a team-charter, it is conceivable that these teams do neither contemplate a great deal about what could go wrong within a project, nor determine where

exactly these threats are located. Without engaging in this effort, certain detrimental group-dynamics such as "*group-think*" might unfold more strongly, where the strive of groups for unanimity prevents team-members from realistically expressing alternative actions or pointing out the risks inherent to a strategy (Janis, 1971). These effects might even be stronger when specific strategies are proposed and fostered by the team-leader. The mandatory and institutionalized discussion of such threats early in a team's life, preceding its written manifestation within the team-charter, might therefore highlight important aspects of the teamwork. Unattended, these risks and obstacles may hit a team much more severe and unprepared during further succession. Analogue to the risks, certain assumptions that are constituting the teamwork, such as e.g. the validity and reliability of the customers' satisfaction rates underlaying the project, may also be targeted and laid out in the charter's creation process. In doing so, the results are bounded to the extent of these foundational assumptions, thereby safeguarding the team from improper application of its output or the critique of its project's rationale (Wilkinson & Moran, 1998).

On a more individual, task-related level, the pinning down of all team members' respective time-commitments is another point through which charters can improve the subsequent teamwork. Charters are relevant for all kinds of teams, and within each team-category the compositions of team-members might vary fundamentally along several dimensions (e.g. cross-functional, cross-organizational, cross-departmental). Therefore, expectations about other members' time commitments shall be made clear, in order to provide foresight, and hold them accountable. Relatedly, each member's roles and responsibilities are usually addressed as far as expedient (Cox & Bobrowski, 2000). While this might be more easy for cross-functional teams with a clearly structured task, it may be more challenging for homogeneous teams with an open-ended and unstructured task. Nevertheless, also for teams where these roles do not come naturally, mapping them, as well as each member's strengths and weaknesses (Hughston, 2014) could be enhancing its performance in the long run by explicitly recognizing each member's preferences. Also, the topic of assigning a team-leader is usually addressed, and in case the team designates one, the respective person may be mentioned in the charter alongside the role's responsibilities (Hughston, 2014; Wilkinson & Moran, 1998). Establishing transparent rules for assessing each member's contribution to the team is another function team-charters often exert. Setting standards after which individual work will be rated, as well as clarifying which team member is ought to give feedback and the way this is supposed to be done, is a frequently applied feature of the team charter and may be particularly apt to prevent conflict (Hunsaker et al., 2011; J. E. Mathieu & Rapp, 2009).

Especially stressed by e.g. Norton & Sussman (2009) is also the fact that while for many teams there is a lot at stake, this is even more the case for teams where individuals are financially impacted. This means that since employees might have premiums and profit-shares for e.g. successfully acquiring

contracts to the company through delivering a team-produced tender, there is a fundamental question of how the financial benefits might be shared between the individuals engaged in the project. While the broad rules shall be predetermined by senior management, HR as well as a company's legal council, it is argued that it might be reasonable to also let the employees have a say in the matter of how to split the rewards. These direct financial consequences may additionally be given naturally for the case of teams operating on their own behalf as beneficial owners, such as entrepreneurial teams or teams of venture capitalists. Evidently, with this higher level of personal effects, the risk of inner-team conflict also rises. All the more decisive can therefore the function of a charter to determine the splitting of rewards beforehand be. Not least because in the case of serious conflict, the involved individuals might also be very limited in arguing for unfair treatment during a subsequent litigation, as they voluntarily entered this jointly produced document (Norton & Sussman, 2009).

Also regarding the surrounding context and environmental factors of a project, there are several especially salient factors that have been suggested worthwhile addressing within a team-charter. On the one hand this concerns the resource constraints, and within this aspect especially the factors of scheduled time and budgeted financial support (Wilkinson & Moran, 1998). While the factor of budgeted finances obviously concerns the amount of money a team can apply itself of throughout a certain period, the factor of time suggests stating specific key milestones, such as a progress-evaluation dates or the final delivery or presentation date. Holding the time-horizon under control can give a team orientation and conversely make members accountable towards each other, as well as the team acountable towards its stakeholders. Further, the charter might include the listing of external affiliated individuals that take the role of team-facilitators, i.e. individuals mediating between team-members and securing effective team-dynamics, or other contacts whose expertise may help the team in achieving its goals. These might supply a team with qualified inputs, regardless of whether they do so by goodwill or appointment. Moreover, a list of key-stakeholders may be detected, agreed upon and stipulated within the charter (Peterson, 2007). These might e.g. be the client, the customers, the project-champion, the management-board, external control institutions, or any other party that has an interest in the outcome of a project. This may increase the team's awareness of them, as well as contribute to a common understanding of how to deal with and address these affiliated parties.

Finally, team-charters shall also make clear statements about how decisions are made within the team, and therefore reduce the likelihood that certain team-members are not listened to, marginalized or ignored (Byrd & Luthy, 2010). These decision-making rules can be adjusted to the group's preferences and task-nature, and might range from unanimity, over required ratios, to more team-leader orientated and centralized decision-making procedures. Obviously, teams with more granted autonomy such as e.g. self-leading teams are typically not likely to apply highly authoritarian decision-making rules, but since charters are relevant for all types of teams from student project-teams over

entrepreneurial teams to boards of directors, a broad range of different stipulated decision-making procedures is conceivable. Relatedly, it is common for charters to establish a communication plan, determining not only which team-member shall communicate to which party of the broader environment, but also what information is allowed to be shared with whom and when it is supposed to get to the outside (McDowell et al., 2011). Since teams may frequently operate in highly competitive and information-sensitive environments, such as e.g. consulting or retailing, and since every company also represents a certain kind of political arena with various differing interests, conscious decisions have to be made about who is to be informed by whom about what, as well as the occasions at which this is adequate do be done (Asencio et al., 2012).

On the side of team-processes, the major function how a charter contributes to more effective teamwork, is by establishing common rules of engagement and behaviour. Examples for such rules might be deadlines for when to deliver subtasks, attendance rules for meetings, charted ways of inner-team communication, or how much time team-members might be allowed to take themselves to answer on requests (Byrd & Luthy, 2010). These stipulated rules impact team-processes in three ways. First, they do so through lending orientation for appropriate and inappropriate behaviour, i.e. through adherence to the stipulated norms (Hughston, 2014). This means that for the individual, having a written evidence of what rules one should base and orientate own actions on, reduces the uncertainty of how to behave properly. Second, just as these rules serve as an anchor for all individuals' behaviours, team-members can more rely on the behaviour of others, since they did just as much agree to this statute. Therefore, to the extent that other members did sincerely commit to this written document, team-members' security of what behaviour to expect from others rises significantly (Brake, 2006). Third, having a team-charter stating which behaviours are acceptable and which ones are not, makes team-members much more liable towards each other. Not only does the immediate possibility to compare members' actions with the statute make it much easier to detect misconduct, but also do well-designed charters include predetermined sanctions for unfavoured actions (Cox & Bobrowski, 2000). These sanctions (as e.g. written formal warnings) might therefore be more appropriate and legitimate, and free the residual team-members from having to determine appropriate measures ad hoc, which may turn out disproportionate or unreasonable. Therefore, these rules of engagement can also be seen as a strong mutual control-mechanism (Hunsaker et al., 2011).

Related to providing rules of engagement and sanctions for misbehaviour, team-charters can also fulfil a crucial function in conflict resolution (Norton & Sussman, 2009). This can for example arise when certain team-members repeatedly fail to comply to the processual rules or when there is inter-personal tension for other reasons. Frequently provided measures by charters to resolve inner-team conflict are internal or external mediation between the involved individuals or conflict parties. Similar to the rules of engagement, the team-strengthening element within these mechanisms is that they were initially

agreed upon, and therefore provide a higher degree of perceived fairness and legitimacy as ex-post introduced and improvised sanctions ever could (Hunsaker et al., 2011). Further, both rules of engagement and conflict-solving mechanisms can serve as empowering tools for involved team-members in fighting social-loafing or free-riding. Without these provisions, teams might have to confront these issues empty-handed, which is for example frequently the case for student- and other teams who share output-responsibility under discrete individual effort. Without charters and the processual guidelines they provide, these teams might only be capable to address such issues at high effort and personal costs. Once such provisions are explicitly stipulated, they are much more easy to enact, and since as a last consequence also the dismission of a member from the group is accounted for by a charter, team-members have substantially more leverage in taking actions against passive colleagues (Johnson & Horn, 2019). Yet, at least in corporate environments, this ultima ratio is rather unusual and typically requires full unanimity of all residual team-members. This is due to the heavy consequences this might have for the individual, such as e.g. the reputational or financial loss, inner-corporate stranding or even unemployment.

Last but not least, and repeating the over-arching rationale of team-charters to “make the implicit explicit”, charters may also consist of an “affectual” component. A team-name, team logo or a team-slogan might be used to create a feeling of togetherness between the team, and potentially contribute to creating a stronger team-identity (Cox & Bobrowski, 2000). Stating team values such as e.g. “simplicity” or “striving for excellence” might render umbrella-terms that members can use as guidance when arguing for one or another solution, or even as the leading principle individual decisions shall be based on when decision authority is given (qv. Byrd & Luthy, 2010; Norton & Sussman, 2009).

As one can see, the functions of charters are numerous, multi-facetted and often multi-layered. How much value there can be drawn for a team will therefore ultimately not only depend on the size and addressed topics of a charter, but also how well the charter is tailor-made to a team’s unique characteristics and the degree to which it is practicable in the run of the whole project. Within this chapter, it was attempted to give a comprehensive, but summarized view of the wide range of a team-charter’s functions. The order after more task-related and more teamwork--related functions of charters was seen as adequate by the author in providing a logical transition and giving a well-structured overview. Nevertheless, there are certainly grey-zones and partial overlaps between the two categories, especially where task- and teamwork are closely intertwined, such as for example within the factor of decision-making. Finally, the categorization of functions will always be somewhat subjective, as abstractions from the immense range of teamwork are inevitable, and an all-embracing list unlikely to exist. While the previous elaboration was drawn from a multitude of sources, a comparable listing from Norton & Sussmann (2009) is given below, relating topics that shall be

addressed by charters to their functions, as well as referring to relevant literature. A schematic one-paged example from the medical sector of how a charter may be sectioned is given within Appendix I.

Attribute	Purpose/Benefit	Representative Citations
Mission	Concrete, group-level operationalization of abstract, firm-level goals.	Lawler 2001; Zenger and Hesterly 1997
Affirmed values	Group declaration of shared values/virtues.	Kirkman and Shapiro 2001; Schein 1997
Structural issues	Articulated objectives, task clarification, performance metrics, timelines, and so on.	Bower and Hout 1988; Steiner 1972; Vroom and Yetton 1973
Group decision making	Choice of model (programmed conflict or consensus), tie breakers, and so on.	Schweiger, Sandberg, and Rechner 1989; Simons, Pelled, and Smith 1999
Conflict resolution	How resolved: Intragroup process? Mediation? Other?	Jones and Hesterly 1997; Wilkinson and Moran 1998
Problem resolution	Assumes conflict is cognitive (reconcilable) rather than social *(ad hominem)*.	Jehn 1997; Katzenbach and Smith 1993; Milliken and Martins 1996
Outside intervention	Assumes conflict is social (reconciliation seems improbable) rather than cognitive (competing perspectives).	McDowell and Sussman 1996; Pruitt, Rubin, and Kim 1994; Shapiro and Kirkman 1999
Firing a team member	Group-developed protocols for dismissal.	O'Reilly and Weitz 1980; Rousseau and Anton 1991
Residual interest	A priori determinations on ownership/equity, residual compensation, or related issues.	French and Rosenstein 1984; Gross and Safier 1995; Pierce, Rubenfeld, and Morgan 1991

Figure 4: Team Charter Framework after Wilkinson & Moran (1998)

2.3.5 Charter Outputs

Investing the time into the creation of a charter, both team members as well as project champions hope for certain positive effects. Similar to the functions, these expected outputs broad and multi-facetted. Previously mentioned factors include for example the increased predictability of actions, the increased accountability and improved enforcement-mechanisms for team-members towards their colleagues, reduced conflict and better structured resolving mechanisms, as well as a potentially better overall-functioning of teams. Similarly, one can assume that these formalizations as well as their joint establishment can improve overall team-functioning and consequently contribute to team-member satisfaction and performance. More formalized, Norton and Sussmann (2009) render 6 distinct possible team-related benefits of team-charters, namely (1) reduced intragroup conflict, (2) speed, (3) decision quality, (4) shared values; (5) group-member satisfaction, and (6) reduced exposure to

litigation (Norton & Sussman, 2009). While (1) reduced intragroup conflict, (2) team-member satisfaction as well as the reduced risk for litigation have been discussed already, (2) speed refers to the reduced "process-loss" that is to be expected. Process-loss itself consists of coordination losses that occur when group members fail to combine their efforts optimally, and motivation losses that occur when group members fail to achieve an optimal level of motivation (Hewstone, Stroebe, & Jonas, 2008; Steiner, 1972). It is reasonable to assume that both aspects can be reduced by team-charters. Finally, improved decision quality can be derived from the explicitly aligned mission, while shared values are expected to be resulting from their common definition. Yet, this is hypothesized to be more likely the case if these values overlap with the organizational values that a team is surrounded of. While there are consequently good reasons for investing the time and effort in creating a charter, there are also certain challenges that need to be overcome, and obstacles that might lead teams to refrain from applying this instrument. These factors will be further discussed in the following chapter about charter challenges.

2.3.6. Charter Challenges

The fundamental drawback of a charter is that it is not possible to foresee all possible challenges a team might face beforehand. Although aiming at anticipating most obstacles that can be detrimental to team-processes and outcome, it would be presumptuous to believe that this can be done before a team actually starts working together (Hammond, 2017). Of course, teams that are not project-bound, but working together on a more long-term base can draw from a big pool of previous experience that might very well be incorporated into the charter. Yet, many charters are particularly created to compensate for a lack of familiarity and liability, which precludes the existence of such a broad range of experiences. The ongoing adaption of the charter through consecutive versions might provide some remedy against this constraint, but implementing this approach does also imply increased needs for coordination and collaboration within the team along the whole path of a team's life cycle.

Also, reaching agreement within the initial process might become a major challenge for the team. Team-members can have fundamentally differing imaginations and expectations about how the processual rules should be arranged, as well as with regard to how the task-work might be approached. One might argue that this would be the case for all teams, which is a reasonable argument, but "kick-starting" a team's work through an initial showdown might turn out to be especially difficult if explicit agreement has to be reached along a long list of sub-sections (Norton & Sussman, 2009). It might be possible that a more gradual and natural transition through the stages of a team's development may have a flattening effect for the level of conflict, compared to the initial showdown based on future-oriented assumptions. Noting the complications and certain team-member's concerns within the creation-process in a charter's supplement might provide some remedy, but it cannot be seen as totally

diminishing this problematic aspect of initial dissent. Further, if teams fail to agree on a team-charter, what are the consequences? Disagreeing members might exit the group, but the team may thereby also lose substantial know-how and expertise, while the project-champions may simultaneously be displeased and alienated.

Additionally, member-fluctuation is another factor that can prevent charters from attaining their full scope of assortative potential (Norton & Sussman, 2009). As previously mentioned, newly joining members can on the one hand accept the terms of a charter and thereby reduce its legitimacy-creating function of *self*-regulating members' mutual responsibilities. As a result, they might feel less obliged to adhere, and consequently undermine its regulating effect. Alternatively, a new charter or charter-version might have to be created for each and every new joining member. Over time, this might be unpractical at best, or unfeasible at worst, especially for teams with a larger amount of team-members. Providing for this scenario during charter-establishment might alleviate these effects, but the changes in a team's member-composition remain a delicate topic that must be resolved by every team individually, and according to its contextual circumstances.

Further, as the most beneficial charters are the ones that have had a sincere establishment process and sufficient quality right from the start, mandatorily prescribed charter-creation might be seen as "just one more" requirement from "the ones at the top", leading to alibi or face-value implementations and consequently decreasing their potential value (cf. Dougherty, Wyles, Pawlina, & Lachman, 2018). This might especially be the case when team-members are not convinced of this effort themselves, and therefore less motivated. Consequently, team-initiators and project-champions are well-advised to take into consideration this aspect, as well as it is generally advisable to provide circumstances where team-members sincerely engage in the creation-process.

Last but not least, the ideally prescribed ample scope of action for teams in elaborating the charter, as well as the team-members' mutual power-constellations in charter-creation, might be distorted. On the one hand, this can be the case because of upper management's provided requirements for a project, or company-wide standards. These restrictions might interfere with what teams would otherwise have agreed upon, thereby reducing the charter's potential effectiveness. On the other hand, informal relational factors between colleagues might shift the constellation of power in one particular direction, beneficial to one particular group or member within the team. This is the case because most companies and working environments are to some extent also political arenas, where informal power-hierarchies as well as differing interests might distort the process of charter-establishment substantially. Therefore, team-initiators and project champions should keep these factors in check, if they want to reach the full potential of a charter's positive effects.

3 Methodology

3.1 Research Strategy

3.1.1. Literature Review

Given the rapid increase in the amount of literature within business research in general, as well as within team research in particular, the research method of a literature review has been described as more important and relevant than ever (Snyder, 2019). This is not least the case, because the inclusion of a multitude of articles enables the answering of research questions with a breadth and depth that exceeds the power of a single study to a large degree. Broadly, a literature review can be described as a systematic way of collecting and synthesizing previous research, in order to facilitate theory development as well as to point out potential paths for future studies (qv. Tranfield, Denyer, & Smart, 2003). More precisely, according to Cooper (1988) the goals of a literature review are to (1) *analyze the literature*, (2*) to integrate diverse and sometimes conflicting perspectives*, as well as to (3) *identify central issues or methodological problems in existing literature* (Cooper, 1988). In a similar manner, Torraco (2016) states that literature reviews can be written to (a) review, update, and critique the literature, (b) conduct a meta-analysis of the literature, (c) review, critique and synthesize the literature, (d) reconceptualize the topic reviewed in the literature, or to (e) answer specific research questions about the topic reviewed (Torraco, 2016).

According to Snyder (2019), there are three different approaches to conducting literature reviews, namely systematic, semi-systematic and integrative types of literature reviews. While a *systematic* review aims to identify all empirical evidence that fits the pre-specified inclusion criteria to answer a research question, the semi-systematic review draws from such numerous different fields addressing a topic, that such a structured approach is precluded. The *integrative* literature review on the other hand represents a form of research that "*generates new knowledge about a topic by reviewing, critiquing, and synthesizing representative literature on a topic in an integrated way such that new frameworks and perspectives on the topic are generated*" (Torraco, 2016, p. 62). Within such an approach, the synthesizing of topics is done by "*weaving together different elements and ideas from the literature*" (Torraco, 2016, p. 64).

3.1.2. Systematic Literature Review

Within this thesis, the approach of a systematic literature review has been followed. This means that by generating and applying appropriate inclusion criteria, it was aimed to include all relevant articles to answer the research question. Although there are both elements of semi-systematic as well as

integrative review approaches present, it is the overarching goal to include all articles relevant that allows for such a categorization. This means that even though on the one hand there might be articles included that stem from a non-directly business-related research field, such as e.g. education, and even though it has been tried to synchronize the literature on the impacts of norms as well as team charters on teams' performance trajectories *to some degree*, the primary aim has been to "*identify all empirical evidence that fits the pre-specified inclusion criteria*" (Snyder, 2019, p. 334), and consequently provide reliable findings. Building on these findings, the drawing of tentative conclusions for researchers as well as the making of decisions for practitioners shall be enhanced and enabled.

This approach is further justifiable, since the different background of the related studies did not pose a substantial barrier to their analysis and interpretation, as it might have been the case for other research topics. In other words, the discrepancy between whether the impact of a team charter or a team's norms on its performance trajectory is studied by researchers of economic or educational background, can be assumed to be less severe than for other research topics, such as e.g. if a public health problem would be investigated by researchers with medical and economic background. This is the case because teams are generally applied over numerous different occupational fields, while the various input, process and outcome categories applied within team research are generally overlapping. Strong context-dependency of each team research study is certainly given, but since the categories explaining the phenomena are largely overlapping (e.g. teamwork quality or performance), this does not pose a fundamental threat for the argumentative weight of this review. Not least so, because a team's environmental context is always discussed and displayed, and thus given adequate space. Therefore, as long as the inclusion criteria were met, differing backgrounds were not considered as harmful to the systematical conduction of the study.

3.2. Inclusion Criteria

3.2.1. Impact of Norms

As it comes to the inclusion criteria, the study is divided along the two components of our research question, that is along the impact of team norms on the one hand, as well as along the impact of team charters on team performance on the other hand. On the side of the team norms the main criteria was that the norms as well as their direct or indirect impact on the progression or performance of teams must play the central role within each study's research focus. Yet, as the impact of these norms on performance over time has often been investigated alongside their formation, studies that focused on their evolvement and development over time were also included, as well as studies of fundamental relevance for the analysis of these (qv. J. Li & Roe, 2012). While all kinds of teams covered by our definition were generally included, studies from the sector of sports were generally excluded. Even

though covered by our definition, this was decided with regard to the uniqueness that sports teams represent, and because their implications might consequently not be sufficiently transferable to professional work team settings. As there is a large tradition of literature on team norms and performance within sports, this remarks a substantial delineation of this study. An exception represents Patterson et al. (2005), since it renders in-depth elaborations of inner-team norms and norms/performance measurement on the one hand, as well as since it additionally focuses on non-sport related aspects such as norms for social situations and subgroups such "productivity" or "supportive behaviours". Since these factors are also related to non-sports teams, this study was considered as relevant for a the goals of this thesis. Norms must have been addressed in our sense as standards of behaviour for group members by the study, which thereby precluded the inclusion of various studies focusing on personal norms, or the impact of personality traits such as e.g. extraversion on team norms and ultimately performance (cf. Gonzalez-Mulé, DeGeest, McCormick, Seong, & Brown, 2014). Moreover, both empiric and theoretical studies were included to the degree that they were well-grounded, while there was no particular time frame of publication previously specified. With the earliest article included being published in 1985 (i.e. Bettenhausen & Murnighan) the study consequently covers a time frame of 35 years. Ultimately, a total of 14 relevant articles has been detected and was finally included for investigation within the first component of the research question.

3.2.2. Impact of Team Charters

Accordingly, also on the side of the team charters was the main criterion for inclusion that their direct or indirect impact on a team's performance represented the primary research topic of the respective study. While the inclusion criteria for the definition of teams was kept constant, a broader variety of included teams and backgrounds appeared in the covered articles, as e.g. teams from the fields of education, business, health-care or engineering. Further, to provide for a sufficiently broad array of included articles, the output variable had to be extended to also include performance antecedents such as for example team satisfaction or team viability. As within the inclusion criteria for norms and team performance, both theoretical and empirical work has been covered, while the share of theoretical work within the team charter section exceeded the share of theoretical articles within the norms section largely. While only 3 of 14 studies within the norms part of the research question were theoretical, accounting for a percentage of approximately 21,5%, the share of theoretical or anecdotal pieces of work within the team charter section amounted to 7 of 18 articles, accounting for 38,8% of articles. Additionally, just as within the previosly elaborated inclusion criteria for the impact of norms, there was no particular time frame for publication specified. Yet, as the topic of team charters did not get academic attention worthwhile mentioning before the late 1990s, the earliest included article stems from 1997 (i.e. Deane et al.), consequently covering a timeframe of 23 years. Thus, a total

number of 32 studies was included in the review, while 10 of these 32 studies were of theoretical or anecdotal nature, and 67% consequently had empirical background. Both quantitative, qualitative as well as experimental studies were covered, while all included articles were written in English, making non-English articles effectively excluded from the review.

3.3. Validity

3.3.1. Internal Validity

Validity generally refers to the degree that a data collection method accurately measuers what it intends to measure, and if the findings of a research consequently inform about what it aimed to inform about (Saunders, Lewis, & Thornhill, 2009). More precisely does a study's internal validity refer to the degree that the causal relationships between the included variables are accurately reflected in its research design. The internal validity of a study does consequently increase with the degree that changes in one included variable can be attributed to changes in another included variable or intervention, and does consequently not stem from flaws in the research design (cf. Zhou, Jin, Zhang, Li, & Huang, 2016). As the variables included in this study have been investigated by a wide range of previous studies, which each has to provide for sufficient levels of internal validity itself, the degree of internal validity of this study can be considered as high. There is evidence for both causal relationships to be accurate and valid, i.e. both for the norms and performance, as well as for the team charters and performance relationship. Since the relationships investigated in this study do not differ from these established relationships in each study constituting it, internal validity can be assumed to be existent to a large degree.

3.3.2. Construct Validity

Construct validity on the other hand, which refers to the extent that a study applies and "*identifies correct operational measures for the concepts being studied*" (Zhou et al., 2016, p. 153), is a more delicate matter. There is a broad variety of measures included in the studies of the review, and although each construct measure itself might be well-proven, this variety poses a certain challenge for assessing this review's construct validity. In other words, although every study included has to address this problem of measuring latent constructs itself, it cannot be denied that this variance in measurements is problematic for the construct validity of this review in total. Nevertheless, there are good arguments in favour of this study's construct validity. First of all, all applied measures have been disclosed by the authors of the included studies, and are consequently mutually traceable. Second, the construct measures of the key variables of each study have also been laid open and elaborated by the author of this study, providing as much declaration as useful for its interpretation.

And third, it was controlled for that each study included bolstered the application of their construct measures sufficiently, as e.g. by referring to numerous relevant preceding studies applying it, or by laying open the Cronbach α value in adapted survey contexts. Therefore, the shortcoming of broad variety in construct measures can be seen as tolerable. This is not least the case because its elimination would exceed the scope of maneuver of this study, as well as since elaborations regarding the context-dependency of each study as well as on the downsides of study-aggregation inherent in literature reviews in general are conducted in various parts of this review.

3.3.3. External Validity

Finally, external validity refers to the degree "*to which the research results from a particular study are generalizable to all relevant contexts*" (Saunders et al., 2009, p. 716). In other words, external validity refers to the "generalizability" of a study. On the one hand, since a literature review draws from a multitude of different studies, its external validity might be higher than for one particular investigation or experiment conducted. The reoccurrence of the most fundamental impacts of norms and team charters on team performances across a broad variety of contexts suggests that a certain degree of context-independency might be given, rendering its conclusions relevance for a broad variety of teams. On the other hand, there is little to no incidence of the exact replication of a particular study in another context, which is why it is hard to presume such a global validness. Consequently, it is reasonable to assume a formidable degree of generalizability for the findings of this study, although only exact replications of several included studies within different contexts could provide for this assumption to be universally justifiable.

3.4. Reliability

Reliability refers to the degree to which the repetition of a study by other researchers under the same conditions would also yield the same results (Saunders et al., 2009). In other words, a study's reliability increases with the degree to which observations made were not due to mistakes or biases within the chosen data collection techniques on the one hand, or within the way "*sense was made from the raw data*" on the other hand (Saunders et al., 2009, p. 726). In the case of a systematic literature review, the most common threat to reliability is the researcher's bias, i.e. the degree to which the selection of papers is based on the researchers' personal preference (Ali & Usman, 2018). This bias can be counterweighed by providing repeatability, transparency and consistency within the search phase. While *repeatability* refers to the degree to which another researcher will find the same set of articles following the documented steps of the search phase, transparency refers to the degree to which the various steps of the search strategy are laid open in the research report. The factor of *consistency* on the other hand refers to the degree that a researcher only answering the same research *question* will

find the same set of papers, and is consequently a measure for the effective of coverage of all the relevant literature (Ali & Usman, 2018). As the research approach, inclusion criteria, included articles as well as the course of action have been reported, the reliability of this study can be assumed to be existent to a sufficient degree. Yet, on the downside, there can be no guarantee that the reported search strategy was the most effective to cover all relevant literature, and that similar studies might not cover a broader and/or slightly different set of articles. This might be especially the case with regard to the first research question, which spans over a larger time frame and therefore comprises a larger amount of potentially relevant articles, which might also have been on the edge of inclusion within this study. Moreover, other researches might also include broader terms of norms and performance, and not least generally dispose of higher capacities in terms of time or monetary resources. Nevertheless, the following of a structured and accurate search process, as well as the detailed description within this thesis, allow for the results of this literature review to be considered as reasonably reliable, and especially so for the extent of the second part of the research question.

3.5. Research Procedure

Derived from the two-folded research question of this review, two different search strings were applied. On the one hand, “team-norms” AND “team-performance” OR “team effectiveness” AND “over time” were used to find articles related to the impact of norms on the performance-trajectories of work-teams, while on the other hand “team charter” OR “team charters” AND “team performance” OR “team effectiveness” were used for the second part of the research question, investigating the impact of team charters on the performance trajectories of work-teams. Within the primarily applied Search Engine, i.e. Google Scholar, this search procedure led to an initial amount of 1200 – 1600 articles for the first component of the research question, while the corresponding amount for the second research question led to an initial amount of 240 to 460 articles. Further applied search engines were “Emerald Insight”, “JSTOR”, as well as the university library database search engine “Oria”. Yet, these search engines rendered only a fraction of the results of the main search engine, and consequently provided only a small share of the finally included literature. Nevertheless, by applying several engines, certain additional relevant articles could be detected that would otherwise have been undiscovered, thereby enriching the breadth and depth of this review. In the same complementary manner, also backward and forward snowballing, i.e. the identification of additional relevant articles through examining the cited studies of a focal study, or conversely the studies citing it, was applied (cf. Wohlin, 2014). Yet this was only of minor relevance, as the thereby discovered articles showed also to be represented within the results of the regular search strategy to almost exhaustive degree. Within the subsequent scanning of the search results, a tremendous amount of articles could be rejected by the fact that they were whether unrelated in terms of the topic, or that they were unrelated in terms of

the investigated variables of the study. This means for example, that they were whether investigating other variables in general, or using the factors of norms or team charters in a different manner, such as mediators or in relation to different dependant variables. Finally, by measuring all potentially relevant articles according to our previously stated inclusion criteria, 38 articles were identified and chosen to build the foundation of this literature review.

3.6. Included Articles

3.6.1. Team Norms & Performance

Paper	Type	Topic	Results
Ginnett, Robert C. (2019): Crews as groups: Their formation and their leadership.	Theoretical	Norm Formation and Performance within Swift-Starting Teams	Introducing four general categories which describe the captain's overall response to addressing environmental shells and trigger norms at the team level.
Fred R. H. Zijlstra , Mary J. Waller & Sybil I. Phillips (2012): Setting the tone: Early Interaction Patterns in Swift-Starting teams as a Predictor of Effectiveness	Empirical	Interaction Norms and Aviation-Performance	Certain conversational interaction norms indicate significant differences in performance between effective and ineffective crews.
Jia Li a & Robert A. Roe (2012): Introducing an Intrateam Longitudinal Approach to the Study of Team Process Dynamics	Empirical	17 Differing Temporal Dynamics Paths	Introducing 17 differing temporal dynamics paths acording to the factors of satisfaction with task-conflict, relationship-conflict and process conflict.
L. Argote (2010): Agreement About Norms and Work-Unit Effectiveness: Evidence From the Field	Empirical	Norm Congruence and Performance within Health Sector Context	Agreement about norms between groups appears to be more strongly related to effectiveness than agreement within groups.
S. Taggar & R. Ellis (2007): The Role of Leaders in Shaping Formal Team Norms	Empirical	Norm Expectations, Norm Formations and Teamwork Processes in Student Team Context	Team-leader & staff expectations do impact problem-solving norms which impact several other teamwork factors (e.g. communication).
M. M. Patterson, A.V. Carron, T.M. Loughead (2005): The Influence of Team Norms on the Cohesion – Self-Reported Performance Relationship: A Multi-Level Analysis	Empirical	Norm as a Mediator between Team Cohesion and Performance	Athletes on teams with stronger norms for social interactions and higher team social cohesion performed best.

J. Ericksen & L. Dyer (2004): Right from the Start: Exploring the Effects of Early Team Events on Subsequent Project Team Development and Performance	Empirical	Early Team Events and their Impacts on Performance Trajectories	Initial Team Work Phase sends teams on virtuous or vicious paths decisive for performance.
M. G. Ehrhart, S. E. Naumann (2004): Organizational Citizenship Behavior in Work Groups: A Group Norms Approach	Theoretical	Embracive Model of Norm Formation	Establishing a model for norm-establishment and maintenance.
G. A. Janicik & C. A. Bartel (2003): Talking About Time: Effects of Temporal Planning and Time Awareness Norms on Group Coordination and Performance	Empirical	Tme-Awareness Norms as Mediator between Planning and Team Performance	Teams engaging ininitial temporal planning formed time-awareness norms that led to less coordination problems & better performance.
Noah E. Friedkin (2001): Norm Formation in Social Influence Networks	Empirical	Impact of Social Influence on Norm Formation	Impacts of work-place dynamics on establishment and maintenance of norms.
Kenneth Bettenhausen & J. Keith Murnighan (1991): The Development of an Intragroup Norm and the Effects of Interpersonal and Structural Challenges	Empirical	Norm Formation and Temporal Development within Prisoner's Dilemma Setting	Teams face interpersonal challenges more successful when they are cooperative, and structural challenges more successful when they are competitive.
Connie J. G. Gersick (1988): Time and Transition in Work Teams: Toward a New Model of Group Development	Empirical	Early Team Events and their Impact on Work Team Development and Performance	Early established task-approach norms have a lasting effect on team's performance trajectories.
K. Bettenhausen & J.K. Murnighan (1985): The Emergence of Norms in Competitive Decision-Making Groups	Empirical	Norm-Formation and Maintenance in Bargaining Game	Congruence between team members' definitions and scripts are crucial in determining if initially established norms are to be maintained.
C. J. G. Gersick and J. R. Hackman (1990): Habitual Routines in Task-Performing Groups	Theoretical	Forms of Team Norm Introduction and Development through Team Members	Discuss 3 ways how habitual patterns can evolve within a team, namely by team members integrating them or teams creating them early or gradually.

3.6.2. Team Charters & Performance

Paper	**Type**	**Topic**	**Results**
K. Johnson & D. Horn (2019): Mitigating the Impact of Social Loafing through the Use of Team Charters and Team Evaluations	Empirical	Team Charters as a Measure to Reduce Social Loafing	Team Charters can contribute to hold team members accountable.

R. W. Dougherty, C. C. Wyles, W. Pawlina & N. Lachman (2018): "The Team is More than the Sum of its Parts": Implementation of Charters to Improve Team Dynamics in an Anatomy Course	Empirical	Team Charters as a Tool to Prepare Health Personnel for Later-On Teamwork within Basical Medical Course	Team Charters can facilitate team-based learning in basic science courses.
Therese E. Sverdrup & Vidar Schei (2017): Using Team Charters to Handle Disruptions and Facilitate Team Performance	Empirical	Experiment about the Impact of Charters on Team Resilience in Student Setting	Teams that develop a team can handle disruptive events better, and improve their performance.
S. H. Courtright, B. W. McCormick, S. Mistry & J. Wang (2017): Quality Charters or Quality Members? A Control Theory Perspective on Team Charters and Team Performance	Empirical	Team Charter Quality and Mean Team Conscientousness as Predictors of Task Cohesion and Performance	Teams with low mean conscientiousness benefit the most from high quality team charters through task cohesion.
P. C. Pilette (2017): Team Charters: Mapping Clearer Communication	Empirical	Improving Teamwork through Team Charters within a Health Care Context	Anecdotal evidence of improved resilience, improved diversity of thinking, and more success in influencing team-environment.
P. L. Cox & P. E. Bobrowski (2016): The Team Charter Assignment: Improving the Effectiveness of Classroom Teams.	Empirical	Experiences of Students with Applying a Team Charter in Project Work	Almost two thirds of students indicated that the team charter aided their team's performance.
Therese E. Sverdrup & Vidar Schei (2015): "Cut Me Some Slack": The Psychological Contracts as a Foundation for Understanding Team Charters	Empirical	Impact of Psychological Contracts on the Performance of Teams within Agriculture	Teams establishing explicit psychological contracts perceive fewer breaches, improve teamwork factors and partly performance.
J. R. Aaron, W. C. McDowell & A. O. Herdman (2014): The Effects of a Team Charter on Student Team Behaviors	Empirical	Impact of Team Charters on Teamwork Quality (TQ) of Student Teams	Team charters can improve teamwork quality factors such as communication, effort, support, cohesion, satisfaction.
V. C. Hughston (2014): Consequences of Team Charter Quality: Teamwork Mental Model Similarity and Team Viability in Engineering Design Student Teams	Empirical	Impact of Team Charter Quality on Viability of Engineering Projects	Higher quality team charter can improve team viability.

R. Asencio, D. R. Carter, L..A. DeChurch., S. J. Zaccaro & S. M. Fiore (2012): Charting a Course for Collaboration: A Multiteam perspective.	Theoretical	Team Charters as Instrument for coordinating Multi-Team System (MTS) Settings	Team charters may improve the interplay between different component teams by stipulating norms of communication and leadership.
W. I. Norton Jr. & D. Hale (2012): Team Charters and Systematic Search: A Prescription for Corporate Entrepreneurship	Theoretical	Team Charters and Systematic Search for Valuable Ideas within Entrepreneural Teams	Systematic search results may improve through entrepreneural teams applying team charters.
P. Hunsaker, C. Pavett & J. Hunsaker (2011): Increasing Student-Learning Team Effectiveness With Team Charters	Empirical	Improved Student Team Effectiveness through Team Charters and Coaching	Team charter assignment and coaching can improve student effectiveness.
J. T. Byrd & M. R. Luthy (2010): Improving Group Dynamics: Creating A Team Charter	Theoretical	Explaining Team Charter Development Process and Rationale within Educational Context	Content and establishment-process of charters allow students to develop cognitive and practical skills for work teams.
J. E. Mathieu & T. Rapp (2009): Laying the Foundation for Successful Team Performance Trajectories: The Roles of Team Charters and Performance Strategies	Empirical	Impact of Team Charters & Performance Strategieson Team Performance Over Time	Establishing team charters) and performance strategies can lead to better performance over time.
W. I. Norton Jr. & Lyle Sussman (2009): Team Charters: Theoretical Foundations and Practical Implications for Quality and Performance	Theoretical	Explanation and Introduction of Team Charters	Team charters can transform abstract tenets of quality into realities of quality.
Christine Robinson (2005): Preparing for the Unexpected: Teamwork for Troubled Times	Theoretical	Team Charters as Team Contingency Response-Plans	Team charters can help in reacting to contingencies by specifying action plans.
N. L. Wilkinson & John W. Moran (1998): Total Quality Management Techniques: The Team Charter	Theoretical	Detailed Description of Functions and Example	Renders various sections, detailed explanations and examples.
R. H. Deane , T. B. Clark & A.P. Young (1997): Creating a Learning Project Environment	Theoretical	I.a. Role of Team Charter within Project-Performance Gap	Initial mentioning of team charter and various functions, both internal and external.

4 Analysis

4.1. Team Norms and Performance

The earliest key contribution within this field is a study from Gersick (1988), who followed 8 project-teams of various contexts (e.g. student teams, hospital administrators planning a management retreat, bankers designing a new type of bank account) through their life-span by attending and audio-taping every meeting as well as making transcriptions of them. Specifically referring to Bettenhausen & Murnigham (1985), strong evidence is found that the first meeting and the interaction pattern within it is crucial for the performance strategies and behavioral patterns of each and every team, especially within the first half of a team's life span. For example, the first meeting might be marked by instant agreement defining what is asked from the group (i.e. the goal) and how the group is aiming to achieve this (i.e. the performance strategy), as in the case of a student team performing an assignment. In other cases, team-members might be ambivalent and contradicting about what is expected from them, such as the hospital administration team planning a retreat, representing high goal-uncertainty. In another group, where the project-champion explained the goals of a project to the designated team, the members showed high concern and resistance about its rationale and implementability (reorganizing care-units of a treatment institution). The crucial point here is that this first meeting had tremendous impact on how the whole first half of all teams' life-spans unfolded itself, until the mid point was reached. Project duration varied broadly from only 7 days (lowest) up to 6 months.

The central role of the first meeting was therefore to pave the way for a group's journey to the midpoint-transition, which occurs at almost exactly half of the whole project duration. It is not meant that the first meeting was decisive for the final success of a team, but for the way this first half was shaped. This means that disregarding how this first meeting unfolds (agreement, uncertainty, or disagreement), it is more important that the team within the first half "*generates the raw material to make a successful transition*" (Gersick, 1988, p. 37). Following these different starting points, getting straight to work, decreasing insecurity about goals or resolving inner-team conflicts would consequently better prepare the group for the subsequent midpoint transition. The stated potential reasons why this point in time seems to be so decisive in team-projects, is on the one hand that the due date of it visibly comes closer, and thereby shifts the focus from how much time has passed to how much time is left. On the other hand, it is likely that at this point enough information has been acquired and output produced to meaningfully calibrate a team's performance. Yet, these are just speculations, and it is at not implied that this a generalizable, all-comprising principle.

The midpoint transition according to Gersick (1988) comprises a fundamental change in a groups preliminary performance strategy. The study of the 8 teams within different contexts revealed that at this point, crucial assumptions about a task's nature were neglected and new perspectives on the task adopted, also through the acquisition of outside expertise or input. Further, groups with considerable uncertainty and unable to make decisions committed to a certain target, while other groups were disbanded without task-completion. Another reason why this midpoint-transition appears to be crucial in all team's life-cycle, is that after it has been undergone, changes in strategies are unlikely to occur. This means that after this point changes in strategy put a successful completion of the task in danger, and the involved risk is therefore too high for the teams. Illustrative examples include the initially agreeing student teams that started a new draft after revising the first one, or the undecisive retreat planning team that finally decided for an outline. Within phase 2, i.e. the time between the midpoint transition and the completion of the team, teams mostly focused on implementing the set plans from the midpoint transition. Although occasionally conflicts that were unaddressed at the midpoint transition worsened, this period was mostly marked by pragmatic actions aimed towards task-completion. A team-member's comment is representative of this approach, stating that the team "had decided what they were going to do" and that the "rest was just mechanics" (Gersick, 1988, p. 30).

The dynamic model of team development that Gersick suggests must be seen as a turn from the classic sequential models of team development that typically prescribe a gradual transition from initiation and launch to the completion of a project. Examples of these models are first and foremost Tuckman's (1965) developmental sequence from forming over storming to norming and performing, although there exist several other examples of similar constructs, also mentioned within the article. Those include e.g. the stages of "orientation, dissatisfaction, resolution, production and termination" (Lacoursiere, 1980), or "generate plans, ideas, and goals; choose and agree on alternatives, goals and policies; resolve conflicts and develop norms; and perform action tasks and maintain cohesion" (McGrath, 1984). Yet, practice has shown that teams develop much more as an iterative process, in which teams oscillate several times between several of these stages, without linear progress (Chang et al., 2003). Gersick's model enables these differing paths of team development through the introduction of points and phases, and allows just as much for team failure or dissolvement. In doing so, thinking of team trajectories is not longer a premised path to success, but a template for various processual unfoldings. A comprehensive theoretical perspective of all possible trajectories has been developed and tested by Li & Roe (2012), where they describe and investigate 17 different possible trajectories. Further, the stressing of the midpoint-transition has been a fruitful contribution to the team-literature, that has been numerously picked up by other researchers (qv. Okhuysen & Waller, 2002). Finally, it has been influential in stressing the importance of the initial phase of a team for its subsequent performance trajectory, and was in this sense also frequently related to the study of norms

and the impact of early team-events (qv. Ericksen & Dyer, 2004). It should further be mentioned that Gersick's model is often referred to as "punctuated equilibrium" in these contextes, as the author describes it to resemble a process from natural history, where long periods of inertia are "punctuated by concentrated, revolutionary periods of quantum change" (Gersick, 1988, p. 17).

Ericksen & Dyer (2004) followed 6 project-teams from the mobilization-phase until project completion. Applying a various mix of empiric methods from participatory observation of meetings to interviews at different points in time and secondary data, the authors outline recurring differences between high-performing and low-performing teams, which itself was measured by perceptions of staff, team-leaders and management. The projects varied widely among tasks and industries, but all teams were similar along dimensions representing specific project-team attributes, such as that they were e.g. newly established, temporary, high in task-complexity and interdisciplinarity, and ambiguous in terms of goal-completion. According to the authors, high and low-performing teams differed according to three factors of their team launch & mobilization activities, namely (1) the duration of this process, (2) whether they were applying a "comprehensive" or "limited" mobilization strategy, and (3) the shaping of the launch meeting, which was categorized "participative" or "programmed". Duration referred to the time between project initiation and the first meeting divided by the total scheduled project-term. "Mobilization strategies" were measured along 4 dimensions, including *content-clarification* (e.g. defining project-scope and requirements or creating work documents), *process-formation* (e.g. the creation of work-plans or time-tables), *staffing* (e.g. establishing and recruiting after required member-criteria), and *outreach* (e.g. the degree to which project-champions included other affiliates in the search and selection of appropriate candidates). The main differences between the two groups were that the mobilization activities of high-performing teams took less time, were focusing more on content-clarification and less on process-formation, were using more "competency-based" instead of "politically" based staffing (as e.g. one member from each related department), and had more "participative" launch-meetings. These results are summarized in the table below, where each project-team is listed under its acronym (e.g. "Paper" or "Wood").

Processes (activities)	High-performing teams (Paper, Wood, Glass)	Low-performing teams (Image, Chair, School)*
Duration†	35%, 33%, 37%	34%, 51%, 49%
Mobilization strategy	Comprehensive: outreach, content > process, competency-based staffing.	Limited: process > content, politically based staffing.
Launch meeting	Participative: information rich, open discussion, "step-down" agenda from broad issues to specific assignments.	Programmed: information poor, leader imposes problem definition and preconceived work plans.

* Image was a mixed case. In terms of process, the duration of its mobilization and launch was comparable to that of the high-performing teams, and although its leader designed a programmed launch meeting, it turned out to be participative.
† Days spent as a percentage of total number of project days.

Figure 5: Summary of the Mobilization and Launch Processes within Ericksen & Dyer (2004)

It is fundamental to keep in mind what these theoretical terms might imply in practice. Using 50% percent of scheduled project duration for the mobilization phase (as approximately the case in the teams "Chair" and "School"), means that only half of the time is left for actual task-completion. Focusing more on process-planning activities instead of content provision might lead to unrealistic estimations of time, and be generated past crucial knowledge and qualified inputs from future team-members with better insight. Not engaging in outreach and pursuing a more politically based approach to staffing implies that a team-leader or project champion does this work completely independent and unadvised, as it was the case in team "School", leading to a lack of talent. And finally, "programmed" launch meetings can induce a "telling and selling" atmosphere (Ericksen & Dyer, 2004, p. 14), which in one case resulted in heavy resistance among the recruited project-team members. By contrast, teams with a fast start might feel empowered by gaining crucial time-reserves, as reflected by a high-performing team-member's statement that "a month's work was done in five days" (Ericksen & Dyer, 2004, p. 16). Extensive application of outreach can imply draining knowledge from colleagues or a company's HR department to detect the right people, only to subsequently let these people themselves select additional team-members, as it was the case in team "Wood". And last but not least, participative launch-meetings are best apt to generate the common perspective on the task at hand, which generally lacked in low-performing teams.

As a consequence of that, teams were whether sent on a "*virtuous*" or a "*vacuous*" path, which differed according to (1) the "time" left for each team until scheduled finish, (2) the "talent" within each team (consisting of the levels of competence and – unexpectedly – the time commitment of the members), and (3) the maturity of the team's "task" performance strategies (consisting of shared problem-definitions, solution frameworks, and distributed task-assignments). Within the study, all teams left the launch-meeting with these resources at differing levels, and only the ones possessing all three would become high-performers later on. By contrast, groups leaving the launch-meeting lacking only one of these beneficial resources, would become low performers until completion. The authors consequently describe these factors as "key inner resources", and outline these high-performing teams' development until completion through phases and stages, applying an IPO-logic at each stage. In accordance with the findings of Gersick (1988), these paths did also include substantial changes and alignments of the project-team's performance strategies at the "midpoint-transition", through increasing learning and the light it sheds on the so-far conducted work on the one side, and an increasing focus "from the time that has passed on the time that is left" on the other side.

Yet, most importantly, the authors spot an additional decisive point-in-time in the project-teams' development, which they describe as "showdown". This point is located close to the project's due date, where changes of strategy are not implementable anymore, and the focus might e.g. be on preparing the presentation of results to management or the board of directors, or on the punctual delivery of a

report. Apart from the heavy time-pressure at this point, and the dependency on the work that has been conducted until then, there might be external events that are perceived detrimental, adverse or contradicting to the work that the project-team had achieved. An example from the article could be newly acquired and contradicting statements of the market potential of an analyzed product, internal or external disagreement about prospected financial returns of a project, or inner-corporate conflict about the rationale of a project in general. According to the authors, this point is the second major transition in a project-teams' development and marked by "high anxiety about the team's abilities to finish on time", "head-to-head conflicts between team members seeking to simplify their deliverables and/or extend their deadline", and "project champions who insisted on sticking to the established plans" (Ericksen & Dyer, 2004, p. 20). As indicated, this point might be especially challenging as it may put the project-team's confidence in their work at test, as well as require external prodding by a project-champion or alike to not lose the nerves and nevertheless lead the project to completion. Alternatively, major efforts can be taken to find a high-level compromise, including external executives or other stakeholders.

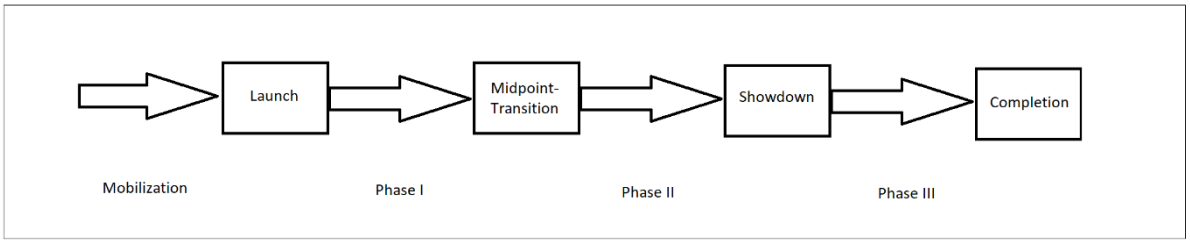

Figure 6: Synchronized Team-Development Model by Gersick (1988) and Ericksen and Dyer (2004)

The model above shows a synchronized version of the dynamic project-team development models of Gersick (1988) and Erickson & Dyer (2004). In contrast to the previously mentioned models based on Tuckman (1965), this version allows for a more embracive abstraction of team-development, without compromising the vast possibilities of different team performance trajectories, including team dissolvement or failure. The combined application and implementation of an IPO-logic through all phases provides an appropriate framework, and allows for the discussion of the numerous differing contextual and group-level factors that are required in the multi-facetted field of team-development. The suggestion of key inner resources with whom teams depart from the launch, that are decisive for subsequent performance, are a strong argument for further focus on the research area of mobilization and launch efforts, as demanded by the authors and not least answered by the larger context of this thesis.

There is further initial evidence that positive norms can impact performance and effectiveness. Research by Argote (1989) studied the impact of norms on work-unit effectiveness in a hospital setting,

survey and face-to-face interviewing nurses and doctors from 44 hospitals' emergency units. The goal was to investigate the impact on performance of 2 different factors, namely the *normative consensus* within e.g. the groups of nurses and doctors, and *norm complementarity* between nurses and doctors. While the first term refers to perceived norm-strength within a group, the second term refers to the degree of overlap in norm-perception between the two collaborating groups. Survey questions applied e.g. Likert scales asking how much discrepancy there is "between the way the doctors see the job of nurses in the emergency units, and the way in which they see their job", as well as the other way around. The results showed that both factors had significant positive impact on a unit's performance, as measured by a previously construed and reliability-checked measure from the author, accounting for (1) promptness of care, (2) the quality of nursing care, and (3) the quality of medical care. Possible biases such as through the general amount of staff as well as the total working load by both groups in hours and total patient load have been controlled for by the author, providing the research with even more argumentative weight. Even further, the study suggests that under certain circumstances, agreeing on norms about "how to solve work problems might even be more important than the actual problem-solving strategy" (Argote, 1989). Obviously, this assumption would not hold where the content of the norm in itself is detrimental, as elaborated by the author. Yet, this in itself is a strong argument for the positive impact of norm complementarity and norm consensus among groups on unit-effectiveness.

Another impact-study of norms and early team events was conducted by Janicik & Bartel (2003), who find evidence for the mediating role of time-awareness norms between initial temporal planning and both coordination and performance. This means that depending on the extent to which teams engaged in temporal planning in their initial meeting, subsequently formed time-awareness norms induced less coordination problems and led to better performance. Instinctively, one might be tempted to attribute this effect to the temporal planning itself. Yet, regression analysis shows that the direct correlation between temporal planning and coordination problems and performance is non-significant ($p>0.05$), while the relation between the time awareness norms and both performance and coordination is highly significant ($p<0.01$). Needless to say, the relationship between temporal planning and time-awareness norms was also highly significant. This suggests that temporal planning is mostly useful when it leads to the formation of time-awareness norms, i.e. the degree to which project-team members are e.g. alerted to meeting deadlines, and are deliberately thinking about "how to use their time well" – as it was asked in their survey part about time-awareness norms. The potentially distorting impact of strategic planning on both factors was controlled for, and did not diminish the established correlations (Janicik & Bartel, 2003). The table of the hierarchical regression analysis is given below.

Variable	Equation number and dependent variable				
	1: Time awareness norms	2: Coordination difficulties	3: Task performance	4: Coordination difficulties	5: Task performance
Control variable: Strategic planning (Time 1)	.06	−.31*	.31*	−.34**	.32*
Independent variable					
Temporal planning (Time 1)	.38**	−.29*	.27*	−.13	.14
Time awareness norms (Time 2)				−.41**	.31*
Coordination difficulties (Time 2)					−.05
Adjusted R^2	.10	.18	.17	.32	.24
F	3.67*	6.58**	6.05**	8.75***	4.75**

Note. $N = 48$ project groups. Values listed are standardized beta coefficients.
* $p < .05$. ** $p < .01$. *** $p < .001$.

Figure 7: Hierarchical Regression Analysis after Janicik & Bartel (2003)

The longitudinal survey-study used self-reported measures for the extent of planning, time-awareness norms and coordination, as well as external ratings for the factor of performance. The context was once again student project-groups, conducting minor consulting-projects with local businesses. There has been considerable debate about the frequent usage of this type of project-teams within team research, and some scholars have been criticizing the extensive usage. Yet the authors argue that these types of teams do share various attributes with project-teams that are embedded in business organizations, such as differing time-constraints resulting from their differing backgrounds according to inner-organizational location or class-schedule, as well as due to their expertise or field-specific major. Nevertheless, the authors call for keeping this context in mind when drawing conclusions from the study, and call for further investigation of potential differences between these surrounding factors – such as e.g. task-type. Although unaddressed, it is also conceivable that time-awareness norms are more decisive for the success of student teams than it would be for corporate project-teams, since the time-adherence variance among students might be higher than within professional contexts. Yet, this is merely speculative and could be the subject of a wider-ranged research-project or literature review.

Another included study within this chapter used the factor of team-norms as a third-variable, namely as moderator between the variables of group-cohesion and team-performance in a team-sports context (Patterson et al., 2005). The study was built on a relationship that had been previously tested in multiple studies and several meta-analyses, and consistently demonstrated small to medium positive effect between the two key-variables (e.g. Carron, Colman, Wheeler, & Stevens, 2002). Applying 3 latent constructs of considerable complexity, the process of operationalization is crucial, and decisions about which established questionnaire to apply and possibly adapt to the needs of a study is always a decisive process in norm-related research. The chosen scales in this case were the Team Norm Questionnaire (TNQ) for the norms part (Carron 1999), Borg's (1971) Perceived Exertion Scale for performance, as well as Carron's (1985) Group Environment Questionnaire (GEQ) for the

factor of cohesion. Norms were further divided into the context-categories of (1) practice, (2) competition, (3) social situations, and (4) off-season. Within each context-category, norms were additionally subdivided into precise groups, such as norms for “attendance”, “concentration”, “productivity” and “supportive behaviors” for the categories of practices (1) and competitions (2), while examples for norms of the other categories would be “social interactions with other teammates” for social situations (3), or the norm of productivity (i.e. “staying in shape”) for the context-category of off-season (4).

The existence of all included norms within the teams could be verified by applying the initially introduced 0.5 consensus-rate among team members. Yet, all task-related norms, as e.g. “attendance” or “concentration”, did not significantly moderate the relationship between cohesion and performance as hypothesized. Social-relevant norms showed a larger effect, and the highest self-reported effort was extorted under circumstances of high team cohesion and strong social interaction norms. Yet, surprisingly, the lowest results occurred under low cohesion and strong norms for social interaction. This was against what was hypothesized, since strong norms were assumed to make clear to team-members what was expected of them. Therefore, the authors interpet this incidence as a potential anomaly in the data, since it is also not accounted for by subject-specific theory. Consequently, the authors ask for further research investigating these ambivalent results. Summarizing, one can say that in accordance with the sophisticated norms-system that the authors applied, a broad range of results was produced. Nevertheless, strong evidence for the established hypotheses was lacking.

An even more recent study stems from Taggar & Ellis (2007), who focus on the context of collective problem-solving norms within newly established and self-managing teams. Self-managing teams are teams that have no externally designated leader, and can determine the path towards a predefined goal largely for themselves. In doing so, they focus especially on how expectations of emergent group leaders and expectations from regular team members (“staff”), as well as their interplay, shapes the group norm of collaborative problem solving. As a second step, the impact of the level of collaborative problem solving norms on 5 teamwork processes decisive for team performance was measured. Building on work from Stevens & Campion (1994), the factors included conflict resolution, collaborative problem solving, communication, goal-setting, as well as planning and task coordination. A schematic illustration from the article is given below.

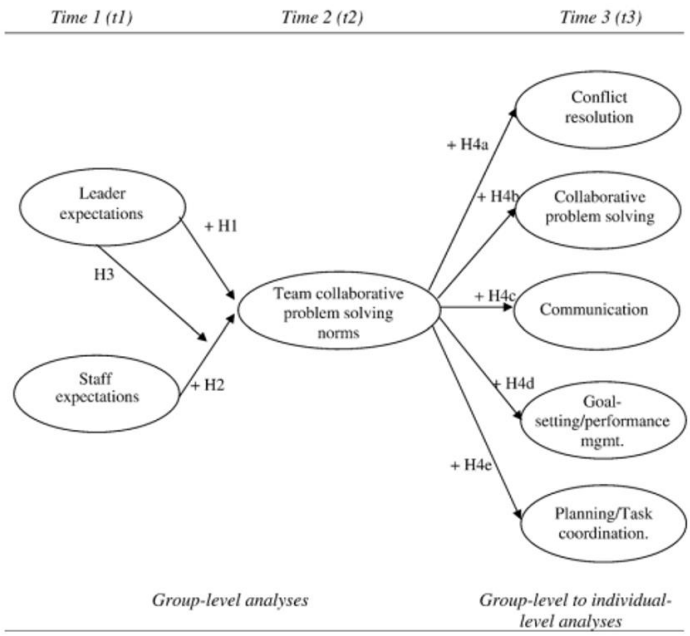

Figure 8: Impact of Leader and Staff Expectations on Team-Level Norms (Taggar & Ellis, 2007)

Using a sample of 222 business students and a median group-size of 4 people, the teams had to solve 2 assignments counting 35% of their grade in total. The time-period was 10 weeks. Prior to group formation (t1), all members were asked to report their expectations about their own personal collaborative problem solving behavior throughout the team-project through a survey, including Likert-scales to what degree they will e.g. “initially clarify and explain issues when someone does not understand”, or “ask relevant questions”. The measure of team collaborative norms, by contrast, was used as a single team answer along the same dimensions in the middle of the project (t2), succeeding inner-team discussions. This remarks a turn from more traditional bottom-up measurements of group norms, which infer the existence or level of a certain norm from aggregation of individual data. This is a recurring methodological debate that accompanies every empiric research of norms at the group level, and must be resolved by each study according to the contextual circumstances. After completing the assignments, and before they got the result for the second assignment (t3), they were surveyed again, rating all other team-members along the 5 factors of team performance, plus along a measure of leadership, namely the General Leadership Impression (GLI) (Cronshaw & Lord, 1987). Thereby, the highest scoring group members could be marked as team leaders, and in sum rendering the scores for all variables involved in the model.

The study renders significant results for both the impact of the leader-expectations of collaborative problem solving on the group norm, as well as for the staff expectations on the respective group norm. Although the highest levels were achieved in teams where both leader and staff demonstrated high levels of leadership, a leader with high expectations of collaboration could partly compensate for low levels of staff collaboration expectations, i.e. lifting the norm level of collaborative problem solving. It

is hereby noteworthy that staff-expectations were calculated as a mean, implying that not all group members in a team regarded as "low" might have had these personal expectations. Further, a leader low in expectations did not account for a drop in collaboration norms when the staff had high expectations themselves. It is therefore discussed, that leaders can have the greatest impact on a team's collaboration norm "*when they believe that staff expectations for norms are too low and need to be raised*" (Taggar & Ellis, 2007, p. 115). It is argued that research on norm-formation is still scant, and that building on their study, the different roles between staff and leaders, as well as how their expectations impact the process of norm formation should be better discovered. Also, since it was shown that leaders can impact the formation of norms,it is argued that these must become conscious about this fact and increase their sensitivity and abilities in exploiting this resource, potentially through coaching and training.

By contrast to the previously discussed studies, the practical approach of the study enabled the authors to demonstrate that expectations about personal behavior do shape the emergence of group norms for newly introduced, self-managing teams. While the previously elaborated studies focused more on how group norms evolve and persevere, this study shows that it is not only previous experiences and interaction-processes, or the norm-disposition between groups and individuals that shapes norm-formation, but also personal behavior expectations of group members and the role of emergent or designated leadership. It is further not focused in which direction and through which moderators and mediators this relation manifests itself, nor how the dynamics of the group might change over time, representing considerable abstractions. Yet, rather than contradicting each other, the varying contexts and limitations of the studies do comprehensively draw a picture of norm-formation and persistence. Lastly, it should be mentioned that the study found also evidence that certain norms can impact team performance, namely for the factors of collaborative problem-solving, communication, as well as planning and task-coordination. These can be seen as even more direct antecedents than team-collaborative problem solving norms for the global norm-performance relationship that is reviewed.

Another study that focused on the impact of early established norms on the performance of teams was conducted by Zijlstra, Waller & Phillips (2012), who focused specifically on the initial interaction patterns of swift-starting teams. This type of teams are composed of highly trained individuals, who perform complex and interdependent tasks under stable role-allocation and time pressure. Examples of swift-starting teams are mostly found within e.g. emergency-care or aviation, which also represents the environment of their investigation. Besides previously mentioned studies on norm-formation, the authors also base their study on ample research proving that even though these teams are prepared for a broad range of situations, the uniqueness of real-life events frequently requires them to apply a certain degree of improvisation. It would therefore be naïve to assume that the reduced uncertainty and ambiguity resulting from standardized response-plans would make these types of teams immune

to challenges of inner-team dynamics and processes. It is further especially these atypical situations where their functioning is put to test and differences in their effectiveness become most salient.

Yet, it is not only extraordinary environmental events that reveal these differences in teams' functioning. Even within routine tasks and business-as-usual operations of swift-starting teams there is high variance how well these teams perform. One aspect of this is related to the level of decision-authority the acting individuals might still have in their operations, as e.g. in determining flight-height or treatment method. Another aspect refers to how well communication between the involved actors functions, refering to a more relational component within the dyadic task- and teamwork logic. A symptomatic quote in this context was made by a co-pilot, who in an interview with Ginnett (1993) stated that when interacting with pilots, "*Some guys are just the greatest in the world to fly with. […] When you fly with them, you feel like you want to do everything you can to work together to get the job done. You want to do a good job for them. Some other guys are just the opposite. You just can't stand to work with them.*" (Ginnett, 1993, p. 95) While it should be mentioned that the respective author also stipulated that this by no means implied that working with these unfavored colleagues would be unsafe, telling which type of captain he would be facing would only take him "*a couple of minutes and you'll know*" (Ginnett, 1993, p. 95). At this point, it should also be mentioned that the status of dyads as teams has been largely debatet, but that the authors refer to this constellation as "the smallest form of teams" (Zijlstra et al., 2012, p. 758). This is also consistent with other established definitons, but it shall be kept in mind when analyzing the study and drawing implications to its general application for team contexts.

The rationale of the respective study was to investigate whether initial interaction-patterns between high-performing and low-performing pilot-teams would substantially differ. The study was conducted within a training session for pilots who were already licensed individually but aimed to become eligible for participating in multi-pilot flight crews. All flights were conducted within a video-recorded flight simulator, where the key-facts about the flight (e.g. the type of the airplane and the weather conditions) were known to the participants beforehand, but an unknown scenario would unfold during the flight. The swift-starting pilot-dyad would then have to manage it, while performance was rated by an instructor sitting behind them. To track the initial interaction-patterns "*from the time the pilots arrived on the simulator flight deck until they received takeoff clearance"* (Zijlstra et al., 2012, p. 761), the authors applied a coding-system to this 15-20 minutes preparation-phase. Within this coding-system, each pilot's verbalization was coded into one specific statement-type. While "inquiry" and "answer" would be examples for the most basic types, other categories were e.g. "suggestions", "observations", "commands" or "apologies". A comprehensive overview of the code-types, their meanings, as well as typical examples, is provided within the table below. In doing so, and with help from a coding-software, a multitude of interaction-patterns was produced. Additionally, the coding

software could complete partial patterns of the same composition, and recognize when one pattern would end and a new one would begin.

Verbalization type	*Description*	*Example*
Command	Specific request or demand for action	"Go ahead and input the frequencies"
Observation	Recognizing or noting a fact or occurrence	"We have good weather today"
Suggestion	Recommendation for action	"Maybe we should call the tower for that"
Inquiry	Request for information	"What is that supposed to be?"
Answer	Supplying information for an inquiry	"It should be set to 4100"
Disagreeing	Response not in agreement with a previous statement	"No, actually that should be 4200"
Laughing	Laughter or clearly humorous remark	"Ha ha!"
Anger	Comment beyond mere disagreement, or a ridiculing remark	"No, I told you that's wrong!"
Apologies	Remark expressing sorrow or regret for prior action	"Sorry about that"
Non-work	Social non-task communication	"Did you have a good weekend?"

Figure 9: Descriptions and Examples of Behavioural Coding by Zijlstra et al. (2012)

By producing a multitude of different interaction-patterns, it could be shown that high-performing dyads' interaction-patterns were more stable in their duration, more stable in their complexity, as well as more reciprocal. This means that the initial interaction-patterns between high-performing pilots and co-pilots were more equally long than between their low-performing counterparts, were marked by a more similar degree of variation between the different code-types, and were involving both senders more equally. Hypotheses that a higher share of high-performing teams' conversations would be corresponding to a pattern, and that high-performing teams would produce a lower amount of unique patterns, were not supported by the data. Although effective teams did produce a lower amount of unique patterns, as it was presumed due to a more "normed" conversation-style, this result was not significant enough to support the hypothesis. Therefore, although not all hypotheses were supported, the study renders strong argumentative weight for the importance of the first moments of interaction between swift-starting teams for subsequent task-performance. Although interaction patterns were collected in a non-emergency, routine setting ahead of the flight, it seems that those teams establishing more stable communication-sequences, were better able to tackle succeeding scenarios.

In this study, performance was solely based on "visible" factors rated by the instructor, such as "*Crew members verbalize and acknowledge entries and changes to automated systems parameters*" or "*Adequate time is provided for completion of tasks*" (Zijlstra et al., 2012, p. 760). Yet, it has been claimed that even though swift-starting teams might effectively fulfill task-requirements, they might still be unwilling to work together on a future task if they were allowed to choose. It has therefore

been suggested to include a satisfaction-ratio in performance measurement of these teams, since future scenarios might be even more challenging, and require an even higher degree of coordination and collaboration. Within such a scenario, previously effectively performing teams in conducting a regular flight might perform at an insufficient degree when e.g. handling a critical situation, which is why it can be insufficient to disregard these team-members' satisfaction with the process. In short, swift-starting teams that fulfill the task, but feel a considerable portion of unease, are insufficient because of the detrimental long-term perspective (Hackman, 1987). Within this context, also the crucial role of leadership has been investigated and debated, and is considered a decisive factor within swift-starting teams. Resulting from the high time-pressure under which these teams often operate, as well as the highly hierarchic role-structures in fields such as rescue-service or aviation, it is important to investigate the "tone from the top" in general, and the leader's role in "setting the stage" through initial interaction patterns with subordinate team-members for our case in particular. Foundational work within this context has been done by Ginnett (1987), who studied the first encounters and formation processes of airline-crews, proposing three factors in providing for effective subsequent leader/team-member authority relationships, that shall be introduced within the next paragraph.

The behaviors frequently observed by highly effective captains in holding the mandatory preflight meeting one hour before departure with the steering crew – including at least one and often more other qualified individuals such as first officers or flight-engineers - were (1) establishing competence, (2) disavowing perfection and (3) engaging the crew. Establishing competence was among other factors done by holding the session following a logical order (e.g. in terms of temporal succession or criticality), containing elements of "technical language specific to the vocation of flying" (Ginnett, 1993, p. 100), as well as being comfortable with the team-setting in general and the leadership position this implies for the captain. These behaviors might seem trivial, but it was not until their absence was manifested by low-effective pilots that they became especially visible to the researcher. Disavowing perfection refers to the captian pointing out his own imperfection through e.g. pointing out a trivial lack of knowledge (which obviously did not concern a critical aspect) or stressing the importance of other team-members' contributions through explicitly empowering them to share their observations in case they consider them as helpful. By doing so, he or she emphasizes that responsibility is shared and that the conduction is not a "one-person show". Preceding these elaborations, several incidents had been listed by the author where crew-members' hesitance to share their observations had fatal consequences, therefore lending this behavior further significance. Third, engaging the crew refers to the degree to which the pre-flight briefing was interactive, in the way that it was not just "rattling down" a schemed monologue that might just have been held to a "group of mannequins" (Ginnett, 1993, p. 101). This means that highly effective captains gave a higher amount of speaking time to other crew-members within the pre-flight meeting, allowing for questions and triggering mutual discourse.

Apart from these authority-related aspects, Ginnett (1993) also stresses the importance of the environmental "shells" that swift-starting teams are surrounded of. With shells, the author refers to the multi-layered surroundings of a team, consisting of the way that a team is formed, as well as the organization, industry and environment that it is embedded in. In this way, shells do predetermine norms and authority to a considerable degree, and team-composition and task to a large degree. Therefore, it is said that the function of these shells is to "provide a predefined or expected set of interactions between various elements of the system" and "to permit simpler and more efficient interactions". Therefore it is argued, that each crew member brings its own perception of these shells to the formation-phase of a swift-starting team, and it is up to the leader to enhance or alleviate them. This is comparable to Bettenhausen & Murnighan (1985), who argued in a similar way, but based their estimations of each individual's baggage more on their previous experiences than on the surrounding environment. Clearly, those two factors are closely intertwined, as team-members' experiences are strongly shaped by the environment they have operated within in the past. Nevertheless, there is a difference, as within swift-starting teams' processual norms are much more predetermined by a team's environment, while self-managed or even self-directed teams can or have to develop and agree on all of these norms themselves. Additionally, Bettenhausen & Murnighan focus primarily on teams with flatter hierarchies, while "crews" and swift-starting teams often have strictly hierarchical lines of command, as mentioned earlier. A schematic depiction of Ginnet's (1993) shell model is given below.

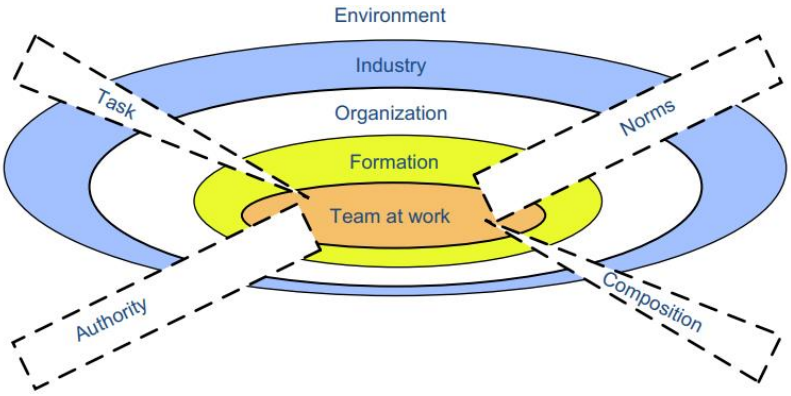

Figure 10: Organizational Shells after Ginnett (1993)

The leader's initial addressing and handling of these shells is crucial, because it sends signals to all team members in terms of how to act properly for effective group-functioning. Therefore, it can also be seen as the process of "breathing life into the shells" (Ginnett, 1993, p. 105). In dealing with these shells, and consequently predetermining a substantial part of the team's interaction, team-leaders have basically four options. These options include (1) undermining, (2) abdicating, (3) affirming, as well as (4) elaborating and expanding, and each alternative comes with different implications on the group

dynamics. *Undermining* implies to willingly act against the norms provided by the environmental shell, causing insecurity among team-members, as well as potentially weakening the shell's authority far beyond the boundaries of the current task (as e.g. one flight or one rescue-mission). This is the case because it might push the limit of what behavior can be accepted, and members might subsequently integrate this view into other task-assignments. *Abdicating* is the most passive way of addressing the shells, leaving the team-members with exactly the expectations that they arrived with. Even though not denying, this non-addressing also leads to insecurity among the crew, particularly because the leader failed to address any scope of action the shells might have intentionally left for him (as e.g. formal rules providing for a pilot's or emergency doctor's discretionary decision-authority). In *affirming*, the leader actively confirms the "definitions, boundary conditions, norms and authority dynamics that the environment and the organization have structured into the shell" (Ginnett, 1993, p. 107). Therefore, the provisions of the organization are reconfirmed and strengthened, and insofar as these provisions are appropriate, the crew can be expected to perform well. *Elaborating and expanding* refers to the most effective way of addressing the shells, where their content (e.g. norms about safety, cooperation and communication) is actively addressed and extended, insecurity among crewmembers reduced and innovative ways of collaboration created. Rather than undermining the current regime provided by the shells, these extensions do reinforce and strengthen it (Ginnett, 1993).

The stream of literature concerned with the formation-process of swift-starting teams and the potential impact it might have on their performance is a strong reminder of the task and context-dependency of team-research in general, as well as on early team-dynamics in particular. Norm-formation and group-development might have differing patterns and parallels both under highly structured settings, such as swift-starting teams, as well as under more open-ended and less predetermined settings, such as self-managing or self-directing teams. Correspondingly, each case's respective implications might not be directly transferable, since the two contexts differ substantially along factors such as the degree of goal-predetermination or the number of acceptable paths towards achieving them.

Yet, this discussion of similar phenomena under differing contextual factors is much more enlightening than it is obscuring. It is striking that under both conditions initial interaction patterns are crucial in determining the further unfolding of a team's dynamics and performance, albeit this happens through differing channels. While self-directing and self-managing teams start their tasks with almost blank sheets of interaction, and consequently establish their own norms through proposing and mutually supporting or opposing interaction patterns, swift-starting teams have plenty of shells to drain guidance from. While self-directing teams are often not appointed a formal team-leader, hierarchy and authority relations between leaders and team-members as well as the team-leaders' addressing of them does play a fundamental, if not the most fundamental role, for swift starting teams.

While different pathways of how norms can impact the performance trajectories of work teams have been established discussed until now, there is another way of how teams can establish norms, namely through intentionally established and writtenly formalized rules, i.e. so-called “team-charters”. While relying on the natural occurrence of beneficial team-norms can result in arbitrary, ineffective and alienating team-norms, team-charters shall provide remedy against these unfavored results. As discussed in the theory part, they can be seen as kick-starters of norm-formation, especially in settings where teams have not worked together before. Additionally, they shall render individuals a measure of holding each other liable, and impose reasonable sanctions where necessary: Representative studies as well as their impact on team performance will be discussed in the following chapter.

4.2. Team Charters and Performance

One of the most widely cited and to the best of the author’s knowledge the earliest empirical evidence of the positive impact of team charters on teamwork quality stems from ‘‘*The Team Charter Assignment: Improving The Effectiveness of Classroom Teams”* by Pamela L. Cox & Paula E. Bobrowski (2000). Based within a university-setting and detecting a general mismatch between the complexities of teamwork and the amount of guidance and preparation that students receive within higher education, the authors recommend the “jump-starting” of positive team-norms through a team-charter assignment early in the semester. Following a team recruitment strategy based on the compensation of individual weaknesses through the teaming of individuals with complementary strengths, a survey among 98 students within four different classes revealed the domination of positive experiences with regard to the charter. The targeted sections and topics that should be addressed were precisely provided (but not limited) by the authors, while a charter-update assignment during the semester was introduced in response to student feedback from previous courses. Also, the keeping of a mandatory meeting journal was demanded in one group of student-teams to potentially underpin the effectiveness of the charter. This group accounted for 55 students or respectively 56% of probands. The results of the survey show that 74,5% of the students rated the creation of a charter between (4) “moderately useful” and (7) “very useful” on a 7-parted bipolar numeric scale. On the same scale, 85% of students found the creation of a logo and a team name “moderately” to “very” useful. Additionally, on a 5-pointed Likert-scale, 75,5% of students stated that the charter “somewhat” or “strongly” helped to clarify group goals and objectives, while 51% also agreed that the charter helped to increase attendance at group meetings. It is argued that these positive experiences and lessons learned from the assignment might also lead to carry-over effects within other team-settings, and consequently contribute to generally improved teamwork among students throughout their studies (Cox & Bobrowski, 2000). An exemplary survey-question as well as its respective table of results is provided below.

On a scale of one to seven, how useful and/or helpful was the team charter assignment?

Not very useful Moderately useful Very useful

1 2 3 4 5 6 7

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	3	3.1	3.1	3.1
2.00	14	14.3	14.3	17.3
3.00	8	8.2	8.2	25.5
4.00	19	19.4	19.4	44.9
5.00	21	21.4	21.4	66.3
6.00	25	25.5	25.5	91.8
7.00	8	8.2	8.2	100.0
Total	98	100.0	100.0	

Figure 11: Likert Scale Survey Results of Cox and Bobrowksi (2000)

The first more wide-ranged empiric study that investigated team-charters in relation to team performance was from John E. Mathieu & Tammy L. Rapp, who in "Laying the Foundation for Successful Team Performance Trajectories: The Roles of Team Charters and Performance Strategies" (J. E. Mathieu & Rapp, 2009) simulated a business case about a multinational footwear company. Within this study, student-teams had to compete within 8 tasks of different choice-options according to all steps of the supply-chain, ranging from production over human resources and finance to marketing & sales.

In doing so, it was tested whether performance-strategies (representing the taskwork aspect) or team charters (representing the teamwork aspect) had a greater impact on subsequent team performance. The team charters were rated according to the two factors of "*completeness*" and "*consistency*", where the former related to the detailed elaboration of all sections and the latter to the charter-provisions not interfering with each other (as e.g. stressing consensus *and* leader-centralized decision authority would). Similarly, the teams' performance strategies were rated according to completeness and internal coherence, referring to the applied corporate strategies (e.g. cost-leadership or differentiation) and contingency-plans for eventually changing environmental situations. The study shows that the highest results over time came from teams possessing both high-quality charters and high-quality performance strategies. Further, even though the impact of performance-strategies over the whole time-frame exceeds the impact of the team-charters, it is the high-quality team-charters that save team-performances to drop substantially after the midpoint-transition (qv. Gersick, 1988) of the 8 performance measurements. This suggests, that without proper teamwork planning, the

transitional phase of the team might be much more detrimental to performance than when a high-quality team-charter providing for acceptable interaction-patterns is in place. Finally, it is stressed that both aspects, i.e. teamwork and taskwork planning need to be addressed for teams to be effective. The underlying performance-trajectory table from the representative study is given below (J. E. Mathieu & Rapp, 2009).

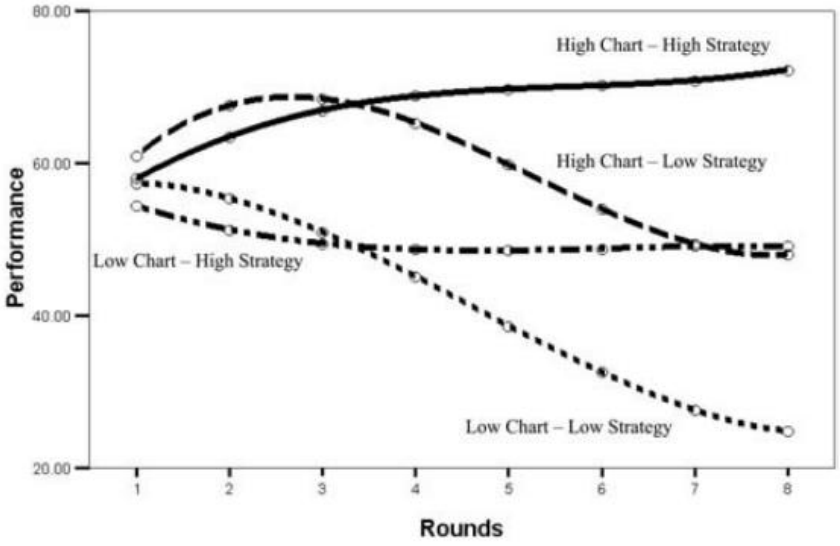

Figure 12: Team charters, Performance Strategies and Team Performance Over Time (Mathieu & Rapp, 2009)

Another study providing weak evidence for the positive effect of team-charters on teamwork quality stems from an article of 2011 by McDowell, William C., Andrew O. Herdman, and Joshua Aaron, who in "Charting the course: The effects of team charters on emergent behavioral norms" report results from a single-factor experiment conducted at a university in the southwestern USA. Different sections of a business policy course had to fulfill a discrete amount of team-work assignments over the duration of one semester. Each of the three different sections represented one treatment group, where one was receiving no team-charter assignment, one received the assignment of creating one as well as an example, while the third group was receiving the charter-assignment, example as well as plenty of instructions as well as follow-up discussions. Within the last week of courses, the total number of 88 probands received a survey about their perceived teamwork experiences, which was measured through the factors of mutual support(1), cohesion (2), effort (3) and communication (4), which the authors acquired and adapted from a teamwork quality measurement survey by Hoegl & Gemuenden (2001). Third variables that might have distorted the outcome of the study were controlled for by statistically ruling out their positive or negative impact on teamwork quality, namely the factors of age, gender, work- and managerial experience. While the authors found significant evidence for the increasing teamwork quality between the non-treatment group and the charter-assignment but no follow-up group, there was also a slight increase between the non-follow up and the follow up

treatment group. Yet this increase was not significant enough to support the hypothesis. Therefore, it is theorized that it might be the actual process of establishing the charter that accounts for the improved teamwork quality, much more than the follow-up coaching and discussion, and therefore "simply calling team member attention to the importance behavior norm may be sufficient" (McDowell et al., 2011, p. 86). It is pointed out that this research shows strong evidence for increased teamwork quality through team charters, and that practitioners are well-advised to increasingly apply this tool. The result table of mean differences, standard error and significance level is provided below.

Variable	Primary Group	Comparing Group	Mean Difference	S.E.
Communication	1	2	-.623**	0.155
	1	3	-.868**	0.154
	2	3	-0.245	0.158
Effort	1	2	-.801*	0.259
	1	3	-.869*	0.257
	2	3	-0.068	0.263
Cohesion	1	2	-.751*	0.253
	1	3	-.845*	0.25
	2	3	-0.095	0.257
Mutual Support	1	2	-.543*	0.17
	1	3	-.726**	0.168
	2	3	-0.183	0.172

*$p < .05$
**$p < .001$
Treatment Group 1 = No Team Charter
Treatment Group 2 = Team Charter Example
Treatment Group 3 = Team Charter Example and Follow-up Instructions

Figure 13: Mean Differences in Teamwork Quality Factors (McDowell et al. 2011)

Another empirical evidence of the positive effect of team-charters on team effectiveness within a university setting stems from Hunsaker, Pavett & Hunsaker (2011), who in "Increasing Student-Learning Team Effectiveness With Team Charters" report strongly improving student-experiences with teamwork through the introduction of a team-charter assignment early in the semester. Both quantitative and qualitative data was gathered through surveying 67 students from three different management classes, including both Likert-scales as well as open-ended questions about their experiences. Based on this data, as well as student feedback and course evaluations, the authors stress that the application of team-charters in their courses has substantially improved team dynamics, satisfaction, and productivity over the last three years. Yet, the authors also emphasize that a one-time assignment to kick-start the teamwork is not sufficient, as the proper implementation of a charter requires 5 additional factors that they argue for. These factors include (1) the continuous management of expectations within the team, (2) the fair rewarding of individual contributions, (3) team process reviews, (4) utilizing due processes for firing non-compliant team members, and (5) charter-review and revisions after project completion.

The first factor is given most space within the authors' elaborations and focuses especially on potential conflicts within teams based on breaches of mutual expectations. Building their understanding of the team-charter on social exchange theory, where social relationships are regarded as based on the balanced exchange of economic and social obligations, inner-team conflicts are predominantly regarded as breaches of agreed upon expectations within this psychological contract. Applying a model of Sherwood and Glidewell (1971) for managing expectations, the authors label these breaches as either "*pinches*", i.e. "*minor disruptions of shared expectations*", or "*crunches*", i.e. "*unbearable disruptions of shared expectations*" (Hunsaker et al., 2011, p. 133). The best way to avoid crunches according to the authors is to proactively act upon pinches immediately when they occur. This is the case, since the continuous suppression of feelings by the team-members that perceive a violation of the psychological contract might first lead to ambiguity and resentment, and ultimately to a crunch. By raising discussion about the breach of expectations already at a pinch point, teams can either return back to stability, renegotiate their expectations (and adapt the charter consistently), or as an ultima ratio dismiss the respective team-member from the team in a proper way. At a crunch point, by contrast, the dismissal might be more resentful, and the renegotiation of expectations more craving, while the return to stability through recommitment might only solve the problem temporarily (Sherwood & Glidewell, 1971). Additionally, at this point the negative impact on the team might have already reached a substantial level. A schematic depiction of the described model is rendered below.

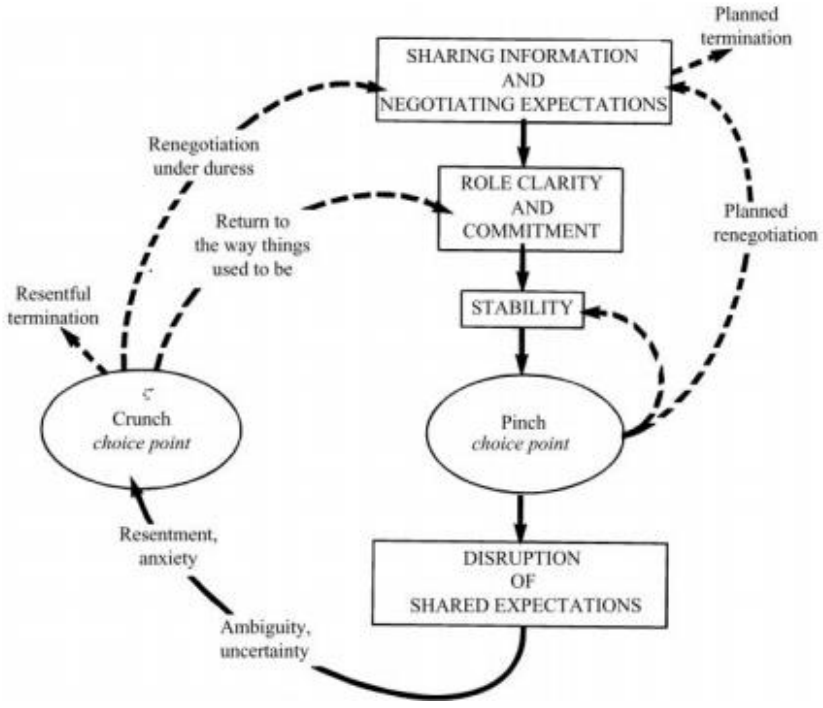

Figure 14: Pinch Model for Managing Expectations applied by Hunsaker et al. (2011)

The second measure for proper implementation of a team-charter according to the authors is individual rewarding, which shall be done between the team-members according to quantity and quality of their contributions, and thus act as a measure to prevent social loafing and free-riding. Further, (3) "*continuous process-reviews*" refer to all team-members having to be aware and scanning for potential pinches throughout the whole project duration, so that they can be tackled and targeted sufficiently early and crunches can be prevented. (4) "*Due processes for firing non-compliant team members*" refers to the following of proper procedural steps before team-members can be dismissed form the group, including a written warning, the provision of reasons as well as the chance for the concerned team-member to complain to the instructor. Finally, (5) "charter-review and revisions after project completion" calls for both individual and collective reflection on the impact of the charter on each member's teamwork experience, as well as potentially suggesting possible improvements. This rounds up the measures for successful implementation of a team-charter in student project-teams according to the authors (Hunsaker et al., 2011).

The only identified contribution so far about the application of team charters in multi-team systems (MTSs) is from *"Charting a Course for Collaboration: A Multiteam Perspective*" (Asencio et al., 2012). Multi-team systems consist of several component teams working interdependently in different functions on a common purpose. As coordination gets more complex as a result, as well as since every team might also pursue own team-level goals, MTSs pose an even bigger challenge to coordination than more independently operating teams. The context of the article is rendered by a cancer-treating university clinic in the United States consisting of diagnosis, treatment and research teams. While each team is aiming at providing best possible treatment for cancer patients as overall objective, trade-offs must for example be made between the time invested for sound medical research on the one side, as well as the time-pressure for application on the other side. Similarly, teams are also interdependent as the best possible treatment to a patient can only be given to the degree that he or she gets impeccably diagnosed.

In this context, the authors stress that team charters may be most beneficial to MTS performance if they address the factors of communication and leadership. On the side of communication this refers primarily to including provisions that build on adapting the type of media applied to the type of message (e.g. feedback or update) on the one hand, and to the type of recipient (i.e. inner-team or between team) on the other hand. Further, also regular between-team meetings are recommended to be addressed by multi-team system charters, as well as the norms for conducting them. On the side of leadership, it is stressed that including shared leadership provisions between the teams may be beneficial, as e.g. according to the topic at hand or each team's specific expertise. Nevertheless, having one formal MTS manager is not precluded per se. As a last recommendation, the statement of a formal

leader for each component team is supposed to be beneficial for the effective flow of information between the teams, as this leader can thus serve as a "connector" between the subgroups. This leader might also be the ambassador or tales person of the team, and be the individual engaging in system-level leadership. Although building their recommendations on preceding research from both team-charter as well as general teams literature, it shall be borne in mind that it is a purely theoretical piece of literature, whose implications have yet to be tested). An example of what a multi-team system charter may look like is provided by the authors.

Another evidence of the positive impact of team charters stems from Veronica C. Hughston in "Consequences of Team Charter Quality: Teamwork Mental Model Similarity and Team Viability in Engineering Student Teams" (Hughston, 2014). Investigating 38 engineering student-teams, of which 23 served as treatment and 15 as non-treatment groups, significant evidence was found that teams creating a charter and attending an introductory lecture showed substantially higher team viability. This variable itself was defined as the team's "*capacity to work together on future projects*", which itself was based on foundational work by Hackman (1987) and represents one of the various possible ways of measuring team-effectiveness discussed earlier. In detail, the variable was measured by drawing survey-items from 2 previous studies on inner-team conflict, including Likert-scale typed questions such as "*I would be happy to work with the team members on other projects in the future" or* "*If you could have left this team and worked with another team, would you have?"* (qv. Jehn, Greer, Levine, & Szulanski, 2008; Tekleab, Quigley, & Tesluk, 2009). Individual results were aggregated to mean team-values, thereby making the data operational.

Team charter quality on the other hand was measured by instructors applying a predetermined point-system based on the charter-components suggested by Hunsaker et al. (2011), whose research has been discussed before. Their prototypical charter included 4 sections, namely (1) *individual background* (e.g. contact details, availability or project-related strengths and weaknesses), (2) *mission statement and team goals*, (3) *roles and processes* (e.g. leadership and decision-making), and (4) *performance agreement* (e.g. sanctioning measures for deviating behavior), with each including 2 to 5 items that should be addressed by the prospective engineers. Dependent on the teams addressing these questions not at all, partially or fully, they were rendered between 0 and 5 points for the charter-assignment – thereby also providing the researcher with quantitative data.

As mentioned, team-viability was significantly higher within the group that received the team charter assignment as well as the introductory lecture, as compared to the control group that did not. Besides, the study also gave initial insights into which parts of the charter were perceived as the most and the least helpful by the students. While contact details (22,68%), roles (15,46%) and availability/meeting times (13,40%) were most often chosen as the most helpful, team-logo/team name

(18,56%), personal background/strengths and weaknesses (16,49%) and roles (9,28%) were most often stated as the least helpful. Although no in-depth analysis was conducted in this regard, it gives preliminary insight into an often neglected question. The two tables of mentioned components and their relative shares of listing as the most and least helpful are rendered below (Hughston, 2014).

Terms	Frequency	Percent
Contact Information	22	22.68
Roles	15	15.46
Availability/Meeting Times	13	13.40
Strengths/Weaknesses	7	7.22
Work Allocation	6	6.19
Goals	5	5.15
Rules/Team Norms	4	4.12
Organization	3	3.09
Logo/Team Name	2	2.06
Conflict Management	2	2.06
Communication	2	2.06
Total	81	83.51
Missing	5	5.15
Total	97	100.00

Figure 15: Responses to Most Helpful Section of the Team Charter (Hughston, 2014)

Terms	Frequency	Percent
Team Logo/Team Name	18	18.56
Individual Background/Strengths &Weaknesses	16	16.49
Roles	9	9.28
Meeting Times	6	6.19
Consequences	4	4.12
Planning Schedules	3	3.09
Allocation of Work	2	2.06
Mission Statement	2	2.06
Total	60	61.86
Missing	9	9.28
Total	97	100.00

Figure 16: Responses to Least Helpful Section of the Charter (Hughston, 2014)

Another piece of evidence for the positive impact of team charters on team-effectiveness within the academic teams literature stems from Schei & Sverdrup (2015), who in *"'Cut Me Some Slack': The Psychological Contracts as a Foundation for Understanding Team Charters*" investigated teams of dairy farmers from the Norwegian agricultural sector (Sverdrup & Schei, 2015). These were engaging in joint ventures of license-based milk-production, sharing most importantly quotas, but also herds and land. Drawing from psychological contract theory, the authors apply the initial and explicit clarification of expectations between team-members as functional substitute for the creation of a team-charter, thereby enabling the non-experimental empiric observation. Conducting 24 in-depth interviews with

both the venture administrator as well as one member of each included team, two differing categories of teams could be identified. One group of teams was represented by fairly explicit and clear initial setting of expectations towards each other, while the other group of teams was marked by more implicitly held expectations. Additionally, its was shown that the members of the group of teams that held explicit expectations were granting each other considerably more tolerance (i.e. "slack") when occasionally failing to comply with these norms, and that these breaches occurred more rarely as within the other group of teams. On the other hand, the teams that held more implicit expectations showed less tolerance for breaches of the psychological contracts, and they occurred more often. Additionally, teams were rated according to the variables of commitment, cooperation and team-viability, and a context-specific measure for effectiveness based among others on the efficient use of the quotas as well as production quality was created. Thereby, it was finally shown that category A teams had higher cooperation, commitment and team viability, and to some extent also showed better performance. A table summarizing the results is given below (Sverdrup & Schei, 2015).

Team	Psychological contract type	Cooperation	Commitment	Team viability	Performance
1	A	Good	High	High	High
6	A	Good	High	High	High
11	A	Good	High	High	High
9	A	Good	Medium	High	High
2	A	Good	Medium	Medium	Medium
3	A	Good	High	High	Low
7	A	Good	—	High	Low
10	B	Poor	Medium	Medium	Low
5	B	Poor	Low	Low	Low
8	B	Poor	Low	Low	Medium
12	B	Poor	—	Low	Medium
4	B	Poor	Low	Low	High

Note. A = explicit, slack, and fulfilled psychological contract; B = Implicit, rigid, and breached psychological contract; "—" = Not enough data to conclude.

Figure 17. Psychological Contracts and Team Functioning (Sverdrup & Schei 2015)

That positive effects of team-charters are not restricted to newly established project-teams and other short-term teams is also shown by anecdotal evidence from the nursing sector. In "*Team charters: Mapping clearer communication*" by executive leadership coach Patricia C. Pilette, it is reported how a low-performing team of highly competent individuals including nursing directors and their leading nurses could be highly improved through the successful implementation of a team charter (Pilette, 2017). Particularly strong focus is directed towards the improved communication, as "*a team charter is all about bringing people together to expand their communication capacity, beginning with discussion and development of a team vision*" (Pilette, 2017, p. 53). Consequently, following a 4-folded concept of a team charter consisting of (1) vision, (2) values, (3) team commitment/norms and (4)

collaborative accountability, a team that started constricted by "*power struggles, blaming, and workarounds*" could be transformed to one that would be "*more resilient in turbulent times, better able to leverage the diversity of thinking, and more successful in influencing others in the organization and consistently achieving deliverables*". Although based on a case, it is not meant as solid empiric evidence, but much more as a practice recommendation and advocacy of team charters (Pilette, 2017).

In *"Quality Charters or Quality Members? A Control Theory Perspective on Team Charters and Team Performance*", four researchers from different universities in the United States investigated 234 student project-teams from an undergraduate management course at a midwestern college (Courtright, McCormick, Mistry, & Wang, 2017). The aim of the study was to get a more nuanced insight into when team charters do actually have an impact on team-performance, i.e. by identifying potential moderators and mediators within the team charter quality and team performance relationship.

The study applies an organizational control theory logic, which generally concerns the alignment of goals between individuals and organizations to achieve desired ends. This is argued to be adequate because in a similar way as within organizations, also "*team success depends on whether team members align their efforts with the team's objectives*" (Courtright et al., 2017, p. 1462). Following this approach, task-cohesion is defined as the "*general orientation toward achieving the group's goals and objectives*" (Bernthal & Insko, 1993, p. 67), and applied as an antecedent for team-performance within the quantitative analysis. Further, the usage of task-cohesion is to be understood as opposed to a team's *social* cohesion, and chosen because control theory focuses generally more on individual goal-seeking than on interpersonal bonds.

Task cohesion itself is investigated as dependant on charter quality on the one side, as well as team conscientiousness on the other side. The former was measured by applying a coding scheme, where trained raters determined the degree to which the charter clearly lays out behavioral expectations (qv. Sverdrup & Schei, 2015). The latter, which captures the "*individual tendency to be task-focused and dependable*" (Courtright et al., 2017, p. 1464), was rated by applying a well-established 5-point Likert scale from Goldberg et al. (2006). The teams' performances were rated by predetermined standards of project censorship, and controlled for rater bias. Further, the impact of team goal setting was controlled for, to not overlap and interfere with the impact of the team charter and thus distorting the collected data.

While the results show that both conscientiousness and charter quality are positively related to task-cohesion, the indirect effects of charter-quality on performance through task-cohesion are much stronger for teams low in conscientiousness. In other words, the most significant effects of team-charter quality on team-performance through task-cohesion occur when team-conscientiousness is

low. Therefore, by creating a high-quality team charter, the performance of teams low in conscientiousness can be significantly raised, while for teams already high in conscientiousness, it may be an unnecessary use of resources with little to no effect. The resulting managerial implications are salient. A table of the effects of charter-quality and team conscientiousness on task-cohesion is given below (Courtright et al., 2017).

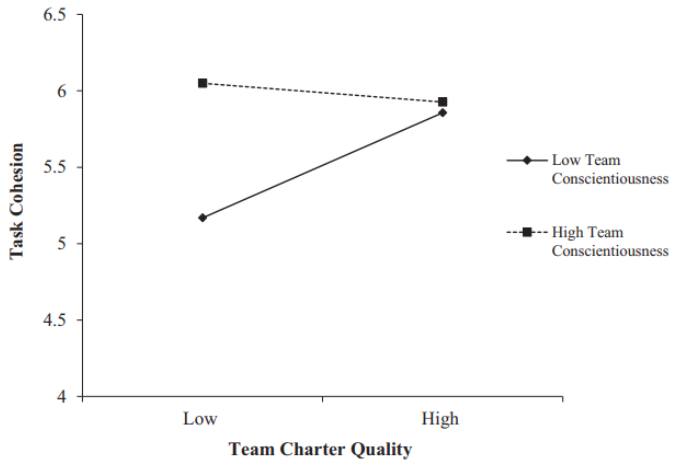

Figure 18: Effects of Charter Quality and Team Conscientiousness on Task Cohesion (Courtright et al. 2017)

Choosing a different approach than previous studies, "*Expecting the Unexpected: Using Team Charters to Handle Disruptions and Facilitate Team Performance*" rendered insight into how the initial creation of a team charter may bolster teams' resilience, i.e. their "*capacity to rebound from a challenge*" (Sverdrup, Schei, & Tjølsen, 2017, p. 53). Precisely, it was tested whether the creation of a team charter would be positively related to team performance through the mediating factor of team adaption, which is defined as "*a process in which a team recognizes that a change has taken place in the team environment and is in turn able to effectively address the unexpected situation*" (Santos, Passos, & Uitdewilligen, 2016). To simulate these changes in the environment of a team, both treatment and control group were given the same fundamental challenges while aiming at the fulfilment of a predetermined task.

In practice, that meant that within a sample population of 320 students consisting of 81 teams within 8 classes and an average group size of 4.07, half of the classes were given an initial team-charter creation assignment, while the other half was performing a standard team-building exercise. In this case the chosen task was the "Desert Survival" game, where teams had to rank a list of items that would secure survival both individually and collectively. Generally, this game is meant to demonstrate the potential superiority of working in teams over working individually. In this experimental setting though, the meaning of it was more to control for the potential advantage that the teams creating a charter would have had merely through the fact that they are spending time within the team-setting.

Therefore, this non-charter assignment had to compensate for the advantage the charter-creating teams would have otherwise had.

The setting for the actual manipulations included a competition where the highest possible tower had to be built, given that it remained standing at least 60 minutes and stable enough to carry one cup of water. The components were provided, including e.g. paper cups copy paper and straws, and teams were given a timeframe of 60 minutes. The manipulations that teams had to cope with were first the transfer of its team-leader to another team after 30 minutes (as well as receiving the leader of another team itself), as well as being informed that the tower has to carry three glasses of water instead of 1, while the remaining time was reduced from 45 minutes to 10 minutes.

Results were split into the factors of how groups handled the disruptive events on the one hand, as well as their general performance on the other hand. While the former was rated by individual post-exercise surveys that were later aggregated to the team-level, performance was measured regarding the height of the stable towers in centimeters. Results indicated that the teams creating a team-charter were handling the disruptions significantly better than teams from the control group. Further, general performance was also better within the teams creating a charter, but this result was not significant. Further statistical analysis indicated also a significant indirect effect for the positive impact of creating a team charter through the mediating factor of team adaption (Sverdrup et al., 2017).

As working in teams is not only increasingly common in the business world, but also within other sectors such as health-care, there is also increasing focus within educational institutions from the health sector on preparing prospective personnel on these forms of conducting work. One reported example is the implementation of charter-supported team assignments within a basic first year anatomy class at Mayo Medical School in the United States. In "'*The team is more than the sum of its parts': Implementation of charters to improve team dynamics in an anatomy course*", the authors report about positive experiences by students working within these settings and about the benefits of using a charter (Dougherty et al., 2018). Aimed at increasing both individual learning through knowledge-sharing, as well as at contributing to the personal and academic development of the participants, students had to fulfil tasks such as dissections and subsequent presentations about these dissections within teams. The charter, whose concept was introduced in detail at the beginning of the course by the lecturers, should thereby increase the "*cohesiveness, communication, interaction and ultimate performance*" (Dougherty et al., 2018, p. 6) of the teams.
The concise provision of the topics that should be addressed by it, a 5-step plan for implementing it as well as a mid-term adaption through the students did substantially support the usefulness of it and increase the performance of teams throughout the whole course. Qualitative evidence for these positive experiences by students in favor of the charter as well as for this type of tuition in general is

rendered by the course evaluations. Within these evaluations, students predominantly marked the team charter concept as largely "*helpful in guiding team expectations*". On the other side, students criticized the increasing amount of paperwork that resulted through it, increasing the total work-load (Dougherty et al., 2018)

Finally, in "*Mitigating the Impact of Social Loafing through the use of Team Charters and Team Evaluations*" by Katryna Johnson & David Horn, the positive impact of a team charter on reducing social loafing is elaborated (Johnson & Horn, 2019). Social loafing as a group-dynamic is explained to be present, when individuals in a team-setting "*exert less effort than they would if they were working independently*" (Johnson & Horn, 2019, p. 18). Based on experiences from a marketing class, where an integrated marketing communications (IMC) plan has to be designed within teams, detailed measures that explain how the detrimental effects of this phenomenon can be restrained through the creation of a team charter as well as through the application of continuous mutual member evaluation are provided. Naturally, the most emphasis is put on accountability between the team members, as e.g. through the assignment of task-responsibilities, norms for communication and meeting procedures, rules for sanctioning deviant behavior as well as for the potential dismissal of team members from the group. These measures are juxtaposed to the general evaluation of team-members through their colleagues according to their discussion contributions on the one hand, and their actual project work on the other hand. It is argued that combined with each other, the effect of the charter might be strengthened. Additionally, the value for the instructor of being able to identify individual contributions is stressed and might be equally applicable for project-champions and team leaders in the non-educational world (Johnson & Horn, 2019).

5 Discussion

5.1. Findings

The strong impact of early events in a teams' life cycle on their performance trajectories has been captured by research over a long period of time and within numerous studies. The evolvement of early established norms of communication (Zijlstra et al., 2012) or the creation of shared definitions of the task and its environment (Bettenhausen & Murnighan, 1985) have been shown to play a crucial role within team-development and to determine their succeeding performance trajectory to a large degree. This has proven to be especially relevant before a possible midpoint-transition (Gersick, 1988), where initially held assumptions about a task as well as ineffective strategies can be overthrown, and a team's efforts can be aligned towards the common achievement of its goal.

Charters can in this context be seen as a way of reducing the uncertainty that is related to leaving the establishment of these norms to chance, i.e. through sparking conscious initial debate about setting the basic rules of task- and teamwork and consequently enable a more deliberate choice about the means and ends of a team's cooperation. While the generally positive impact of charters on team performance has been reported along several studies (qv. Hughston, 2014; Hunsaker et al., 2011; J. E. Mathieu & Rapp, 2009), there is evidence that the impact might be lower in the initial phase of a team's performance and increase with time (Courtright et al., 2017). In other words, it has been shown that the creation of a high-quality charter could spare teams a slump in performance with increasing project-duration, anchored quite exactly in the middle of project duration. This finding is of high relevance, as it seems consequently that through the initial statement of the rules of engagement, i.e. by creating a team charter, teams might more successfully go through this decisive phase, and thereby substantially increase their overall performance. Although the exact means by which charters can serve as such a remedy against the whims of a midpoint-transition remain unclear (e.g. through better communication or improved conflict solution mechanisms), this insight could be highly relevant for understanding team-development processes and should be investigated with much more precision in the future.

As mentioned, there is plenty of initial evidence that team charters can contribute to improved team performance – although their argumentative weight and informative value is varying from empiric and scientific to theoretic and anecdotal. To better understand *how* team charters can improve overall team performance, McDowell, Herdman, & Aaron (2011) have shown the positive impact of charter-creation on a set of teamwork-quality aspects such as communication, effort, cohesion and support. Although rated as average team values, it is conceivable that these raised teamwork quality aspects itself also over time serve a normative function in the way that deviant behavior is likely to be

sanctioned. It could therefore be the case that these teamwork-quality factors also serve as norms in their function as "standards of behavior", and that deviant behavior to these norms gets sanctioned. The less the variation between each team-members attitudes about these factors would be, i.e. the higher the norm strength of these aspects would be, the stronger also their effect on the individual member would be. As a consequence, these charter-triggered teamwork-quality factors might serve as a strong social mechanism that ultimately leads to better performance. Although such a measurement was not conducted by the researchers, such argumentation would also be in line with researchers arguing for the "ostensive" nature of emerging team phenomena, in which team members identify norms "*and then go on to act on the basis of this recognition […] and potentially act to change the pattern*" (Waller et al., 2016, p. 7). While even the authors themselves do occasionally relate to these teamwork quality aspects as "*process norms*", they are more treated as emergent team phenomena and antecedents to performance than as team norms in our narrow sense. Their positive impact on performance does though indicate that such a normative effect of these teamwork quality aspects on individuals might also be at play.

Additionally, given that the factor of initial planning does actually have been shown to have the capacity to create norms, that itself subsequently serve as antecedent to performance (Janicik & Bartel, 2003), this potential path of *how* charters can impact and be used to impact team-performance seems even more reasonable. In other words, if time-awareness norms can be generated by initial planning activities, and mentioned teamwork quality factors such as communication, effort and support can be triggered by initial "chartering" activities, it seems likely that a large number of comparable norms for a multitude of other factors such as conflict-resolution, feedback-provision etc. *could* also be triggered by initially investing the time into the creation of a team charter. The triggered norms could therefore absolutely function as behavior reinforcing feedback-loops, nudging teams towards a better performance and strongly improved processes. Although specific research focused precisely on the norm-sparking and behavior-reinforcing effect of a team charter is scarce, it seems that there are numerous interplays unrevealed. Further, while this observation does again demonstrate the close connection of the two topics of team charters and team norms, it does also undoubtedly indicate that once these mechanisms would be properly understood, opportunities to positively impact project-work would be numerous and the gains to harvest for practitioners plenty.

Further, there has been initial evidence that teams that cooperate on the basis of a team charter are more resilient towards disruptive events in their environment that impact the team substantially. This is another path of *how* charters can contribute to team-performance over time, that does need more research to be validated. While experimental settings do enable the strong control of variables, it remains to be proven if such an effect would also manifest itself in non-experimental and non-university settings. As there is strong evidence that modern teams need to be able to adapt faster than

they used to over the last decades, i.e. for example through reacting on increasing membership fluctuations and alike, there would be a lot to gain from such research. Not least because this channel of impact might also be relevant for a broad range of teams outside the borders of traditional project-team settings, that are emphasized both in the relevant research literature as well as within in this review. Examples might be entrepreneurial teams applying charters for eventual new member additions (Forbes, Borchert, Zellmer–Bruhn, & Sapienza, 2006).

Similarly, it has been shown that teams applying charters are more tolerant for breaches of the psychological contract or "deviant" behavior laying outside of what is expected from them. While this might sound contradicting in the first place, it seems that the active management of expectations leaves more space for undesired behavior, sub-optimal resource usage and alike. It seems that the factor of accountability addressed within charters provides team members with some sort of tolerance and relaxation about breaches, compared to a case where these rules would be presumed and implied without mutual confirmation. Although once again there is a lack of precise research exactly on these phenomena, the initial insights are promising, and further research about how charters can be designed and implemented to harvest these positive effects of expectations and accountability would be highly valuable.

While there seems to be no sufficient agreement according to the necessary components of a team charter across fields and disciplines, there has neither been enough focus on what components of a charter might be most effective and efficient, as well as which components might be obsolete and unnecessary for raising team performance. Those questions have hardly been targeted, and must be asked more frequently. Not least because it is evident that the process of a charter creation can be time-consuming and troublesome – especially if there are monetary values and other strong personal interests involved. In this regard, also the question about their cost-effectiveness must be raised more often. In other words, there might be valuable knowledge to draw from team members' perceptions of the most beneficial and detrimental components of a charter, as well as how these preferences manifest themselves in actual performance. Initial evidence shows only that on the positive side, contact information, roles as well as availability and meeting times have been named as most helpful by team members (Hughston, 2014), while on the negative side team logo/team name, individual background/strengths and weaknesses as well as team members roles have been mentioned as least helpful. Yet this evidence is contradicting, as the factor of team identity has been occasionally described as positive in educational settings, and the factor of individual background has been mentioned both among the four most beneficial and detrimental factors. With regard to the cost-effectiveness, mentioned detrimental factors include among others the increased paperwork (Dougherty et al., 2018), while the majority of studies reports positive impressions of the gained value for the invested effort, as described in more detail previously.

Another effect by which charters may impact the positive performance of teams may be through the levelling of the field of intra-team dynamics through formalized rules according to decision-making, meeting procedures, and communication. Large scale research by Google called “Project Aristotle” has demonstrated that the most effective teams are the ones where tasks are approached in a way that secure that no team member gets marginalized or ignored in the task-fulfilment as it would be the case for example through unqualified but overly extroverted team members taking on leadership functions. Avoiding that, teams were enabled to draw from bigger pools of information and skills, without cutting out valuable impacts from more reluctant team members (Duhigg, 2016). While this does not necessarily imply that all team members had to contribute in all tasks, it means that within the most effective teams the individuals adopting leadership functions were either changing according to the task, or every individual was equally included in every task solution. In other words, teams with one specific individual taking the leadership position in every task were not among the best performers.

It seems obvious that charter-creation could contribute to this “levelling of the field” and “giving a voice” to under-represented team members, by explicitly stating named interaction rules or leadership provisions, and by triggering the accordant norms. There is a chance, that it was exactly these mechanisms why numerous teams – especially in student project settings – have reported better experiences and improved performances. Yet again, such effects have not been proven yet, since unfortunately no empiric research has investigated the topic in the required fashion and depth. Likewise, while the same research also indicates that psychological safety is a main common denominator of effective teams, there is just as much a chance that it was through this mediator that team charters could substantially contribute to performance. Namely, since psychological safety is defined as a ‘‘*shared belief held by members of a team that the team is safe for interpersonal risk-taking*’’ (Edmondson, 1999, p. 350), the communication rules that are stated clearly in a charter could have increased exactly this team emerging team phenomenon through e.g. stating that conversational turn-taking shall be valued, and that attention shall be given to other team members feelings. While the case-study does report that it might be especially difficult to change the behaviours of the confident software engineers involved in the study to bring about these norms, it seems that trying out the concept of a team charter would undoubtedly have been worthwhile.

5.2. Shortcomings

(1) Lack of common theory

The lack of a common theory on team charters has been stated by many authors, describing it for example as “*devoid of theory*” (Courtright et al., 2017) or “*based on best practice […] rather than a theory of team charters*” (Sverdrup et al., 2017). Therefore, various literature streams have been

applied or discussed as constitutional, such as norm-formation theory (J. E. Mathieu & Rapp, 2009), realistic job preview theory (Wilkinson & Moran, 1998), teamwork quality theory (McDowell et al., 2011), social exchange and psychological contract theory (Sverdrup & Schei, 2015), or organizational control theory (Courtright et al., 2017). As a consequence, it seems that dependent on the emphasis and focus of any particular study, the most appropriate theoretical basis has been applied as foundation. This multi-channeled development seems therefore both understandable and reasonable, as the theoretical background provides the researchers with the primary logic to deduct their hypotheses for empirical testing. For example, if the relation between the team-charter, member conscientiousness and performance over time was the focus, organizational control theory was applied. Or, if the relation between a team charter, teamwork-quality and performance over time was the focus, teamwork quality theory was chosen. Similarly, if the relation between a charter, expectations of behavior as well as performance over time was the field of interest, psychological contract theory was provided as framework. Nevertheless, it seems that the informative value of the research could be magnified if one particular stream of literature would evolve as dominant in the future. As a consequence, more consistent knowledge could be produced, which would be more relevant as well as easier to implement for practitioners. Additionally, it would be easier for researchers to build on previous work, and therefore draw a more nuanced picture of the potential and effectiveness of team charters. Ultimately, the research would be more cohesive and thus more valuable for practitioners.

(2) Fragmented evidence:

Another current problem on the side of the team-charter literature is its fragmentation according to the academic fields of its origin, as well as its general low depth in occurrence. The various environments that team-charter effects have been observed and reported span from education to business administration, over health care and engineering to primary sector production. While evidence under contextual differences can surely serve as a strength in drawing a multi-layered picture of a team research topic, the overall low amount of empiric research does not allow such a positive conclusion in this case. Additionally, much of the evidence existing is of anecdotal nature, and high-quality empiric research is scarce. While there are strong signs that there is much to gain from team-charters, both quantitatively and qualitatively, more academic attention is required to bolster these initial insights. Yet, the fact that these positive results are actually created from such a broad range of occupational fields, must be seen as empowering and motivating for both researchers to continue engaging with this promising topic, as well as for practitioners to continue applying and developing this powerful tool. As working in teams is still on the rise across numerous fields, there is plenty to gain.

(3) Primacy of Student-settings

There has been considerable debate about the high usage of student-teams in team research. It is stated that researchers often "*[…] avoid the underlying issues whereas others cursorily address generalizability without real consideration of those issues*" (Compeau, Marcolin, Kelley, & Higgins, 2012, p. 1093). As the vast majority of evidence about team charter effectiveness is drawn from these environments, the question whether these conclusions can be transferred to professional teams is justified. There might be factors that overstate their positive effects among students, such as e.g. their low initial familiarity with each other, or stronger variations between team-members according to internal and external factors as compared to professional settings. While stronger variations according to *internal* factors might include differing taskwork and teamwork skills, or the students' motivation and conscientiousness, differing *external* factors might include the level of effort that is exercised in the composition of a team (e.g. "outreach" according to Erickson & Dyer, 2004) or the criteria after which teams are assembled. While in non-university settings it is more likely that members possess the necessary taskwork and teamwork skills to succeed in a project through their long-term performance within a company, it is conceivable that especially undergraduate students might lack such critical skills. Additionally, while professionals might exert much more effort in a team's formation, student-teams might to a much larger degree be composed by chance, such as e.g. through seating patterns in a lecture room or their rank on an alphabetic list. Although some studies in student settings aim at controlling for these factors (qv. Dougherty et al., 2018), team-formation in professional environments still increases the probability of motivated and capable teams substantially. The creation of a team charter might therefore be much more valuable for teams that lack conscientiousness and are prone to social loafing and free riding, as well as to teams that are formed in a non-professional way in general. This is in accordance to the literature, showing both an effect against free riding as well as stronger impact on teams low in conscientiousness (Courtright et al., 2017; Johnson & Horn, 2019). By contrast, professional teams might therefore not depend on the tool of a charter to a similar degree, as there is less risk for these detrimental factors. Therefore, results in university settings might overstate the potential impact of a team charter on team effectiveness.

(4) Lack of a common understanding of a team charter

Another shortcoming of the academic literature on team charters is the lack of a common understanding of both its definition as well as its components and contents. It is self-explaining that different contexts and occupational fields have different requirements and standards, but the tremendous discrepancies in breadth and depth make comparisons flawed. Recommendations about the components of a charter can on one end of the specter be broad and vague, such as from Pilette (2017) who recommends and explains 4 broad topics that should be addressed (i.e. vision, values, team

commitment/norms and collaborative accountability). In the middle of the specter, one example for a mid-sized prescription would be from Stark & Natvig (2017), who despite stating that "*the format of a team charter may vary*" (N. Stark & Natvig, 2017, p. 1) in "*Team Charter: A Tool to Promote Team Performance*" generally detect 8 key elements that every charter should include, together with brief descriptions. These factors include the purpose, scope, stakeholders, goals, deliverables, performance norms, boundaries and resources needed. Similarly, Hunsaker et al. render 7 key components of their charters together with brief descriptions, namely mission statement, team vision, team identity, boundaries, operating guidelines, performance norms and consequences, and charter endorsement (Hunsaker et al., 2011). On the other end of the specter of recommendations about which components to include in a charter, Wilkinson & Moran (1998) precisely and narrowly cover 21 sections including the topics, content-explanations and their relevance as well as an example. As to provide overview and clarity about what is recommended to practitioners, as well as how to investigate the effects of charters on team performance trajectories, a dominant framework that allows for adaption to each context would significantly improve the value of the concept. It seems that the creation of such a shared framework would both be possible as well as as considerably urgent.

5.3. Future Research

Given the promising initial results of team charter research, the current amount of high-quality studies is surprisingly limited. Therefore, it seems that there is plenty of space for valuable contributions across numerous sub-topics. These topics could for example include a closer look at which team-level or organizational preconditions teamwork processes and performance can be most impacted by creating a team charter. In detail, scholars could look at differences in the impact of high-quality, low-quality or no charter conditions on a team's level of conflict, effort or performance across different team-compositions such as for example the degree of functional and demographic diversity, or according to organizational factors such as e.g. different human resource systems or a team's embeddedness within multi-team environments (qv. J. Mathieu et al., 2008). By doing so, it could be further investigated if certain conditions are especially amenable for the application of a charter, such as functional diversity within a team or the embeddedness and entanglement of a team within multi-team systems (qv. Asencio et al., 2012). As it has been applied frequently as a second-step measurements, a performance ratio could also be included. While initial research by McDowell et al. (2011) conducted similar research about the impact of team charters and follow-up coaching on various teamwork processes in a student environment, it could be especially enriching to test this extension within in a non-university setting, where also differences in these impacts according to task and team duration as well as between different types of teams could be investigated. Since such comparative research is currently

lacking, it would render even more insight into the circumstances that make applying a charter most valuable (qv. McDowell et al., 2011).

Additionally, researchers could look at the relative importance of various charter sections in relation to teamwork quality factors and performance over time. This could for example be done by rendering different charter templates including different sections to a number of competing teams and subsequently measuring teamwork quality and performance over time. As a result, inferences about their relative importance could be made. Moreover, by conducting this kind of research, a more objective view of the importance of the different charter sections could be attained, as compared to the simple rating by team members predominantly applied until now (qv. Hughston, 2014). Also this type of research could be done across different task and team durations, as well as comparing different types of teams. Although such research may require larger scaled projects compared to most of the existent research until today to make valid statements, it would not be out of reach and potentially deliver valuable insights. Especially the question to which degree affectual components of team charters (as e.g. logos or team names) can have an impact on a team could be measured in this regard, taking a new point of view and answering a previously neglected question of high relevance.

Furthermore, investigating the degree to which charters can trigger group-level norms with more deliberate focus, as it has been shown to be possible for the factor of planning and time-awareness norms, would be highly valuable (qv. Taggar & Ellis, 2007). Demonstrating this potential of team charters to “kick-start” beneficial norms (qv. Stray et al., 2016), would be a strong argument for their increasing application, and thus be particularly relevant for practitioners. Although it is not the aim of this thesis to popularize team charters, the reviewed potential positive effects make at least their further investigation seem worthwhile. Additionally, by elaborating this mechanism in more detail, more knowledge about the channel through which charters operate could be attained. Combined with the research about teamwork processes as well as performance over time, it does therefore seem possible to achieve a consistent picture of the research field and the involved mechanisms. Finally, also investigating team charters in relation to the concept of psychological safety is regarded as a promising approach. Since team charters can state rules of behaviour for team members, there is good reason to believe that they can also contribute to making a team more safe for ‘*interpersonal risk-taking*’ (Edmondson, 1999). Consequently, researching the degree to which charters can increase team-level psychological safety could render valuable insights and confirm the previously mentioned research results by Google (Duhigg, 2016) outside the regarded corporation. Not least, it would also render a promising interdisciplinary research field on the edge between psychology and business administration.

5.4. Limitations

As this thesis was written in the context of a larger research project about the starting phase of professional teams, it was aimed to give a most embracive view on the existing literature to the reader. In order to do so, as well as to give a broad and potentially not exclusively field-related audience access to the body of literature, both the underlaying concepts as well as some of the included studies may have been explained in more detail than what represents the standard of a literature review. Yet, since this was done in order to approach the research topic in a gradual manner, as well as to include an explanatory component, this is regarded as justifiable. In addition, as every literature review is bounded by the search strategy applied, there can be no guarantee that every relevant study was included. Applying the elaborated searching criteria, as well as scanning the results for appropriateness and adequacy, it cannot be precluded that certain relevant studies were excluded erroneously. Yet, as all included studies are laid out by the author in the methodology section, this limitation can be considered as counterweighed to a large degree.

Similarly, this literature review might have elements of a critical review. This is the case as the primary aim was just as much to get an initial overview of the existent literature on the research topic, as it was to reveal potential research gaps. Yet, as the amount of literature on the matter is limited, as well as since the literature cannot be seen as equally depicted and delineated as it might be the case within classical literature reviews on more established research topics, this extension can be seen as expedient (Addison, Glover, & Thornton, 2010).

6 Conclusion

Within the scope of this thesis, a large number of studies has been analyzed to assess the impact that norms can have on the performance trajectories of work teams, as well as to evaluate the orchestrating role a team charter can play in this context. A broad range of research perspectives and various study approaches were elaborated, in order to give the reader a synchronized view on the literature on both evolvement and manifestation of team-level norms and team charters. It has been shown that behavioral patterns developed early in a team's development can have lasting effects and reverberate for a long time after their establishment, and that beneficial norms and the instrument of team charters can positively impact both collaboration and outcome quality for a broad range of teams. The study's findings include strong arguments for further investigating the related variables for researchers, as well as convincing reasons for leaders and practitioners to pay attention to the involved mechanisms. Yet, low breadth and depth within the existing literature, as well as a lack of consistency within the applied approaches call for further theoretical and empirical work to underpin the discovered phenomena with even more argumentative weight.

7 References

Addison, J., Glover, S. W., & Thornton, C. (2010). The impact of information skills training on independent literature searching activity and requests for mediated literature searches. *Health Information & Libraries Journal, 27*(3), 191-197.

Ali, N. B., & Usman, M. (2018). Reliability of search in systematic reviews: Towards a quality assessment framework for the automated-search strategy. *Information and Software Technology, 99*, 133-147.

Argote, L. (1989). Agreement about norms and work-unit effectiveness: Evidence from the field. *Basic and Applied Social Psychology, 10*(2), 131-140.

Argote, L., & McGrath, J. E. (1993). Group processes in organizations: Continuity and change. *International review of industrial and organizational psychology, 8*(1993), 333-389.

Asencio, R., Carter, D. R., DeChurch, L. A., Zaccaro, S. J., & Fiore, S. M. (2012). Charting a Course for Collaboration: A Multiteam Perspective. *Translational Behavioral Medicine, 2*(4), 487-494.

Aubé, C., & Rousseau, V. (2011). Interpersonal aggression and team effectiveness: The mediating role of team goal commitment. *Journal of Occupational and Organizational Psychology, 84*(3), 565-580.

Balkundi, P., & Harrison, D. A. (2006). Ties, leaders, and time in teams: Strong inference about network structure's effects on team viability and performance. *Academy of Management Journal, 49*(1), 49-68.

Bell, S. T., & Marentette, B. J. (2011). Team viability for long-term and ongoing organizational teams. *Organizational Psychology Review, 1*(4), 275-292.

Bernthal, P. R., & Insko, C. A. (1993). Cohesiveness without groupthink: The interactive effects of social and task cohesion. *Group & Organization Management, 18*(1), 66-87.

Bettenhausen, K., & Murnighan, J. K. (1985). The emergence of norms in competitive decision-making groups. *Administrative Science Quarterly*, 350-372.

Bettenhausen, K., & Murnighan, J. K. (1991). The development of an intragroup norm and the effects of interpersonal and structural challenges. *Administrative Science Quarterly*, 20-35.

Bowers, C. A., Braun, C. C., & Morgan, B. (1997). Team workload: Its meaning and measurement. *Team performance assessment and measurement: Theory, methods, and applications*, 85-108.

Bradley, J., White, B. J., & Mennecke, B. E. (2003). Teams and tasks: A temporal framework for the effects of interpersonal interventions on team performance. *Small Group Research, 34*(3), 353-387.

Brake, T. (2006). Leading global virtual teams. *Industrial and commercial training*.

Bushe, G. R., & Coetzer, G. H. (2007). Group development and team effectiveness: Using cognitive representations to measure group development and predict task performance and group viability. *The Journal of Applied Behavioral Science, 43*(2), 184-212.

Byrd, J. T., & Luthy, M. R. (2010). Improving group dynamics: Creating a team charter. *Academy of Educational Leadership Journal, 14*(1), 13.

Cannon-Bowers, J. A., & Salas, E. (1998). Team performance and training in complex environments: Recent findings from applied research. *Current directions in psychological science, 7*(3), 83-87.

Carron, A. V., Brawley, L. R., Eys, M. A., Bray, S., Dorsch, K., Estabrooks, P., . . . Madison, R. (2003). Do individual perceptions of group cohesion reflect shared beliefs? An empirical analysis. *Small Group Research, 34*(4), 468-496.

Carron, A. V., Colman, M. M., Wheeler, J., & Stevens, D. (2002). Cohesion and performance in sport: A meta analysis. *Journal of sport and exercise psychology, 24*(2), 168-188.

Carron, A. V., Hausenblas, H. A., & Eys, M. A. (2005). *Group dynamics in sport*: Fitness Information Technology.

Chang, A., Bordia, P., & Duck, J. (2003). Punctuated equilibrium and linear progression: Toward a new understanding of group development. *Academy of Management Journal, 46*(1), 106-117.

Cialdini, R. B., Reno, R. R., & Kallgren, C. A. (1990). A focus theory of normative conduct: recycling the concept of norms to reduce littering in public places. *Journal of personality and social psychology, 58*(6), 1015.

Cialdini, R. B., & Trost, M. R. (1998). Social influence: Social norms, conformity and compliance.

Cockburn, T., & Smith, P. (2016). VUCA and the power of Emergence Teams. *PM World Journal, 5*.

Compeau, D., Marcolin, B., Kelley, H., & Higgins, C. (2012). Generalizability of information systems research using students—A reflection on our practices and recommendations for future research. *Inform. Systems Res, 23*(4), 1093-1109.

Cooper, H. M. (1988). Organizing knowledge syntheses: A taxonomy of literature reviews. *Knowledge in society, 1*(1), 104.

Courtright, S. H., McCormick, B. W., Mistry, S., & Wang, J. (2017). Quality charters or quality members? A control theory perspective on team charters and team performance. *Journal of Applied Psychology, 102*(10), 1462.

Cox, P. L., & Bobrowski, P. E. (2000). The Team Charter Assignment: Improving The Effectiveness of Classroom Teams.

Cox, P. L., & Bobrowski, P. E. (2016). The team charter assignment: Improving the effectiveness of classroom teams. *Journal of Behavioral and Applied Management, 1*(2), 789.

Cronshaw, S. F., & Lord, R. G. (1987). Effects of categorization, attribution, and encoding processes on leadership perceptions. *Journal of Applied Psychology, 72*(1), 97.

Deane, R. H., Clark, T. B., & Young, A. (1997). Creating a Learning Project Environment: Aligning Project Outcomes with Customer Needs. *Information systems management, 14*(3), 54-60.

Devine, D., Clayton, L., Philips, J., Dunford, B., & Melner, S. (1999). Teams in Organizations. *Small Group Research - SMALL GROUP RES, 30*, 678-711. doi:10.1177/104649649903000602

Dougherty, R. W., Wyles, C. C., Pawlina, W., & Lachman, N. (2018). The Team is More Than the Sum of its Parts: Implementation of Charters to Improve Team Dynamics in an Anatomy Course. *Asia Pac Schol, 3*, 6-174.

Duhigg, C. (2016). What Google learned from its quest to build the perfect team. *The New York Times Magazine, 26*, 2016.

Edmondson, A. (1999). Psychological safety and learning behavior in work teams. *Administrative Science Quarterly, 44*(2), 350-383.

Ehrhart, M. G., & Naumann, S. E. (2004). Organizational citizenship behavior in work groups: a group norms approach. *Journal of Applied Psychology, 89*(6), 960.

Ericksen, J., & Dyer, L. (2004). Right from the start: Exploring the effects of early team events on subsequent project team development and performance. *Administrative Science Quarterly, 49*(3), 438-471.

Forbes, D. P., Borchert, P. S., Zellmer–Bruhn, M. E., & Sapienza, H. J. (2006). Entrepreneurial team formation: An exploration of new member addition. *Entrepreneurship Theory and Practice, 30*(2), 225-248.

Fraser, K. (2009). Labour flexibility: impact of functional and localised strategies on team-based product manufacturing. *CoDesign, 5*(3), 143-158.

Friedkin, N. E. (2001). Norm formation in social influence networks. *Social Networks, 23*(3), 167-189.

Gersick, C. J. (1988). Time and transition in work teams: Toward a new model of group development. *Academy of Management Journal, 31*(1), 9-41.

Ginnett, R. C. (1987). *First encounters of the close kind: The formation process of airline flight crews*. Retrieved from

Ginnett, R. C. (1993). Crews as groups: Their formation and their leadership.

Goldberg, L. R., Johnson, J. A., Eber, H. W., Hogan, R., Ashton, M. C., Cloninger, C. R., & Gough, H. G. (2006). The international personality item pool and the future of public-domain personality measures. *Journal of Research in personality, 40*(1), 84-96.

Gonzalez-Mulé, E., DeGeest, D. S., McCormick, B. W., Seong, J. Y., & Brown, K. G. (2014). Can we get some cooperation around here? The mediating role of group norms on the relationship

between team personality and individual helping behaviors. *Journal of Applied Psychology, 99*(5), 988.

Haas, J. E., & Drabek, T. E. (1973). *Complex organizations: A sociological perspective*: Prentice Hall.

Hackman, J. R. (1987). The design of work teams. In J. W. Lorsch (Ed.), *Handbook of Organizational Behavior* (pp. 315-342): Prentice-Hall Englewood Cliffs, NJ.

Hackman, J. R. (1992). *Group influences on individuals in organizations*: Consulting Psychologists Press.

Hackman, J. R., & Wageman, R. (2005). A theory of team coaching. *Academy of Management Review, 30*(2), 269-287.

Hammond, K. (2017). Pros and Cons of a Project Charter. Retrieved from https://bizfluent.com/info-8055374-pros-cons-project-charter.html

Hewstone, M. E., Stroebe, W. E., & Jonas, K. E. (2008). *Introduction to social psychology*: Blackwell Publishing.

Hoegl, M., & Gemuenden, H. G. (2001). Teamwork quality and the success of innovative projects: A theoretical concept and empirical evidence. *Organization Science, 12*(4), 435-449.

Hughston, V. C. (2014). *Consequences of team charter quality: Teamwork mental model similarity and team viability in engineering design student teams*: The Pennsylvania State University.

Hunsaker, P., Hunsaker, J., & Pavett, C. (2011). Increasing student-learning team effectiveness with team charters. *Journal of Education for Business, 86*(3), 127-139.

Jackson, J. M. (1965). Structural characteristics of norms. *Current studies in social psychology*, 301-309.

Janicik, G. A., & Bartel, C. A. (2003). Talking about time: Effects of temporal planning and time awareness norms on group coordination and performance. *Group Dynamics: Theory, Research, and Practice, 7*(2), 122.

Janis, I. L. (1971). Groupthink. *Psychology today, 5*(6), 43-46.

Jehn, K. A., Greer, L., Levine, S., & Szulanski, G. (2008). The effects of conflict types, dimensions, and emergent states on group outcomes. *Group Decision and Negotiation, 17*(6), 465-495.

Johnson, K., & Horn, D. (2019). Mitigating the Impact of Social Loafing through the use of Team Charters and Team Evaluations. *Journal of Education and Human Development, 8*(4), 18-26.

Kirkman, B. L., & Rosen, B. (1999). Beyond self-management: Antecedents and consequences of team empowerment. *Academy of Management Journal, 42*(1), 58-74.

Kozlowski, S., & Ilgen, D. (2006). Enhancing the Effectiveness of Work Groups and Teams. *Psychological Science in the Public Interest, 7*, 77-124. doi:10.1111/j.1529-1006.2006.00030.x

Kozlowski, S. W., & Klein, K. J. (2000). A multilevel approach to theory and research in organizations: Contextual, temporal, and emergent processes.

Kruck, S., & Teer, F. P. (2019). Interdisciplinary student teams projects: A case study. *Journal of Information Systems Education, 20*(3), 7.

Lacoursiere, R. B. (1980). *The life cycle of groups: Group developmental stage theory*: Human Sciences Press New York.

Li, F., Li, Y., & Wang, E. (2009). Task characteristics and team performance: The mediating effect of team member satisfaction. *Social Behavior and Personality: an international journal, 37*(10), 1373-1382.

Li, J., & Roe, R. A. (2012). Introducing an intrateam longitudinal approach to the study of team process dynamics. *European Journal of Work and Organizational Psychology, 21*(5), 718-748.

Marks, M. A., Mathieu, J. E., & Zaccaro, S. J. (2001). A temporally based framework and taxonomy of team processes. *Academy of Management Review, 26*(3), 356-376.

Mathieu, J., Maynard, M. T., Rapp, T., & Gilson, L. (2008). Team effectiveness 1997-2007: A review of recent advancements and a glimpse into the future. *Journal of Management, 34*(3), 410-476.

Mathieu, J. E., Gallagher, P. T., Domingo, M. A., & Klock, E. A. (2019). Embracing complexity: Reviewing the past decade of team effectiveness research. *Annual Review of Organizational Psychology and Organizational Behavior, 6*, 17-46.

Mathieu, J. E., & Rapp, T. L. (2009). Laying the foundation for successful team performance trajectories: The roles of team charters and performance strategies. *Journal of Applied Psychology, 94*(1), 90.

McDowell, W. C., Herdman, A. O., & Aaron, J. (2011). Charting the course: The effects of team charters on emergent behavioral norms. *Organization Development Journal, 29*(1), 79.

McGrath, J. E. (1984). *Groups: Interaction and performance* (Vol. 14): Prentice-Hall Englewood Cliffs, NJ.

Miles, S. J., & Mangold, G. (2002). The impact of team leader performance on team member satisfaction: The subordinate's perspective. *Team Performance Management: An International Journal*.

Mortensen, M., & Haas, M. R. (2018). Perspective—Rethinking teams: From bounded membership to dynamic participation. *Organization Science, 29*(2), 341-355.

Norton Jr, W. I., & Hale, D. (2012). Team charters and systematic search: A prescription for corporate entrepreneurship. *Journal of Applied Management and Entrepreneurship, 17*(1), 19.

Norton, W. I., & Sussman, L. (2009). Team charters: Theoretical foundations and practical implications for quality and performance. *Quality Management Journal, 16*(1), 7-17.

Okhuysen, G. A., & Waller, M. J. (2002). Focusing on midpoint transitions: An analysis of boundary conditions. *Academy of Management Journal, 45*(5), 1056-1065.

Patterson, M. M., Carron, A. V., & Loughead, T. M. (2005). The influence of team norms on the cohesion–self-reported performance relationship: a multi-level analysis. *Psychology of Sport and Exercise, 6*(4), 479-493.

Peralta, C. F., Lourenço, P. R., Lopes, P. N., Baptista, C., & Pais, L. (2018). Team development: Definition, measurement and relationships with team effectiveness. *Human Performance, 31*(2), 97-124.

Peterson, T. M. (2007). Motivation: How to increase project team performance. *Project management journal, 38*(4), 60-69.

Pilette, P. C. (2017). Team charters: Mapping clearer communication. *Nursing Management, 48*(5), 52-55.

PMI. (2017). Success Rates Rise–Transforming the High Cost of Low Performance. In: Pulse of the Profession® Newtown Square, PA.

Rockmann, K. W., & Northcraft, G. B. (2010). Expecting the worst? The dynamic role of competitive expectations in team member satisfaction and team performance. *Small Group Research, 41*(3), 308-329.

Santos, C. M., Passos, A. M., & Uitdewilligen, S. (2016). When shared cognition leads to closed minds: Temporal mental models, team learning, adaptation and performance. *European Management Journal, 34*(3), 258-268.

Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students*: Pearson education.

Schilling, M. A., & Hill, C. W. (1998). Managing the new product development process: strategic imperatives. *Academy of Management Perspectives, 12*(3), 67-81.

Sherwood, J. J., & Glidewell, J. C. (1971). *Planned renegotiation: A norm-setting OD intervention*: Institute for Research in the Behavioral, Economic, and Management Sciences ….

Shuffler, M. L., Diazgranados, D., Maynard, M. T., & Salas, E. (2018). Developing, sustaining, and maximizing team effectiveness: An integrative, dynamic perspective of team development interventions. *Academy of Management Annals, 12*(2), 688-724.

Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research, 104*, 333-339.

Stark, E. M., & Bierly, P. E. (2009). An analysis of predictors of team satisfaction in product development teams with differing levels of virtualness. *R&d Management, 39*(5), 461-472.

Stark, N., & Natvig, D. (2017). *Team Charter: A Tool to Promote Team Performance*.

Steiner, I. D. (1972). *Group process and productivity*: Academic press New York.

Stevens, M. J., & Campion, M. A. (1994). The knowledge, skill, and ability requirements for teamwork: Implications for human resource management. *Journal of Management, 20*(2), 503-530.

Stray, V., Fægri, T. E., & Moe, N. B. (2016). *Exploring norms in agile software teams.* Paper presented at the International Conference on Product-Focused Software Process Improvement.

Sundstrom, E., McIntyre, M., Halfhill, T., & Richards, H. (2000). Work groups: From the Hawthorne studies to work teams of the 1990s and beyond. *Group Dynamics: Theory, Research, and Practice, 4*(1), 44.

Sverdrup, T. E., & Schei, V. (2015). "Cut Me Some Slack" The Psychological Contracts as a Foundation for Understanding Team Charters. *The Journal of Applied Behavioral Science, 51*(4), 451-478.

Sverdrup, T. E., Schei, V., & Tjølsen, Ø. A. (2017). Expecting the unexpected: Using team charters to handle disruptions and facilitate team performance. *Group Dynamics: Theory, Research, and Practice, 21*(1), 53.

Taggar, S., & Ellis, R. (2007). The role of leaders in shaping formal team norms. *The leadership quarterly, 18*(2), 105-120.

Tekleab, A. G., Quigley, N. R., & Tesluk, P. E. (2009). A longitudinal study of team conflict, conflict management, cohesion, and team effectiveness. *Group & Organization Management, 34*(2), 170-205. doi:10.1177/1059601108331218

Thompson, L. L. (2018). *Making the team: A Guide for Managers, 6th Edition*. New York: Pearson Education.

Torraco, R. J. (2016). Writing integrative reviews of the literature: Methods and purposes. *International Journal of Adult Vocational Education and Technology (IJAVET), 7*(3), 62-70.

Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a methodology for developing evidence-informed management knowledge by means of systematic review. *British journal of management, 14*(3), 207-222.

Tuckman, B. W. (1965). Developmental sequence in small groups. *Psychological bulletin, 63*(6), 384.

Tuckman, B. W., & Jensen, M. A. C. (1977). Stages of small-group development revisited. *Group & Organization Studies, 2*(4), 419-427.

Turner, J. C., & Haslam, S. A. (2001). Social identity, organizations, and leadership. *Groups at work: Theory and research*, 25-65.

Van Der Vegt, G. S., & Bunderson, J. S. (2005). Learning and performance in multidisciplinary teams: The importance of collective team identification. *Academy of Management Journal, 48*(3), 532-547.

Waller, M. J., Okhuysen, G. A., & Saghafian, M. (2016). Conceptualizing emergent states: A strategy to advance the study of group dynamics. *The Academy of Management Annals, 10*(1), 561-598.

Wilkinson, N. L., & Moran, J. W. (1998). Team charter. *The TQM Magazine*.

Wohlin, C. (2014). *Guidelines for snowballing in systematic literature studies and a replication in software engineering.* Paper presented at the Proceedings of the 18th international conference on evaluation and assessment in software engineering.

Zhou, X., Jin, Y., Zhang, H., Li, S., & Huang, X. (2016). *A map of threats to validity of systematic literature reviews in software engineering.* Paper presented at the 2016 23rd Asia-Pacific Software Engineering Conference (APSEC).

Zijlstra, F. R., Waller, M. J., & Phillips, S. I. (2012). Setting the tone: Early interaction patterns in swift-starting teams as a predictor of effectiveness. *European Journal of Work and Organizational Psychology, 21*(5), 749-777.

Appendix I

- Team Charter Example form Health Care after Wilkinson & Moran (1998)

1. Team charter
   - ❑ Project
   - ❑ Task force

2.Team Name: 3. Version: 4. Subject:

5. Problem/opportunity statement:

6. Strategic alignment: 7. Team leader:

8. Team sponsor: 9. Team facilitator:

10. Team members: Area of expertise:

1. ----------
2. ----------
3. ----------
4. ----------
5. ----------
6. ----------
7. ----------

11. Performance improvement AIM (mission):

12. Scope (Boundaries):

13. Customers (primary and other): Customer needs addressed:

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14. Objectives:

✓ ----------
✓ ----------
✓ ----------

15. Success metrics (Measures):

16. Considerations (assumptions/constraints/obstacles/risks):

17. Team member time commitments: 18. Available resources:

19. Key milestones: ---------- Date: -----

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20. Communication plan (who, how, and when):

21. Key stakeholders: Area of concern (as it relates to the charter):
