TEAMS RESEARCH IN PROJECT MANAGEMENT AND ORGANIZATIONAL BEHAVIOR:

Leveraging One Discipline to Propel Another

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Abstract: Teams and team related concepts have been investigated in the organizational behavior (OB) and project management (PM) disciplines for a century and nearly half-century respectfully. A five-decade, interdisciplinary examination of the OB and PM team literatures suggests areas for expeditiously incorporating OB concepts into PM research thus reducing an average 25-year "thematic lag" between OB's and PM's similar, team-centric research initiations. Adoption of a shared agenda, as done previously in other fields (e.g. Selznick, 1948), would allow PM researchers to leverage prior OB studies while focusing sharply on PM-specific team issues thus propelling research in theory and practice.

Keywords: Project management, organizational behavior, team dynamics, interdisciplinary

1. Introduction

Despite over four decades of dedicated research (e.g. Murdick, 1976; Rondinelli, 1976) and a considerable accumulation of theoretical (Johnson, Creasy, & Fan, 2016) and empirical evidence (Mir & Pinnington, 2014), the field of project management ("PM") is still young as compared to its applied social science counterparts such as psychology, sociology, and organizational behavior. First, it is important to note the important strides made by the field of project management to address important project-related outcomes such as project success (Mir & Pinnington, 2014), project team climate (Tampoe, 1989), and project leadership (Posner, 1987) among many others. Second, it is also important to explore the possibility that existing literatures, such as organizational behavior, could contain valuable findings useful for accelerating the maturation of the project management field. Despite several examples of effective integration of organizational behavior and project management concepts, numerous examples of redundant theorizing and empirical testing also exist. While many of these instances of retheorizing are certainly warranted as project dynamics could certainly alter the existence and impact of existing phenomena, many other examples do not appear to address context-specific issues. For these reasons, the purpose of this article is to explore the possibility that research addressing work teams in the field of organizational behavior can serve as an important resource for focusing on issues specific to project management.

Utilizing existing work in one field to inform another is not a new idea. In fact, early researchers in the field of organizational behavior recognized the valuable nature of findings in the fields of psychology, sociology, and anthropology for helping the field to mature (e.g. Selznick, 1948). The result of this acknowledgement was a rapid maturation of the field based on sound empirical and theoretical evidence presented in other fields. For example, Selznick (1948) utilized ideas from psychology and sociology to suggest that organizations are dynamics, cooperative social systems that are comprised of both formal and informal social channels. In doing so, he utilized existing work in more mature fields (e.g. psychology and sociology) within the social sciences to rapidly progress the field of organizational behavior. As a result, research in organizational behavior and theory matured quickly to address topics such as leadership dynamics (Stogdill, 1950), the effect of organizational structure on employee behavior (Cyert & March, 1955), as well as caused and consequences of employee motivation and workforce morale (Viteles, 1953). Examining literatures beyond the project management field for the purposes of field development, exploration or comparison is not a new endeavor. Soderlund (2011) examined various management and organizational journals seeking the necessary pluralism to avoid specialization and fragmentation within the PM field. Kwak and Anbari (2009) sought to identify "allied disciplines" to PM within the management literature domain to understand, via comparison, the progress of project management research.

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In this same spirit then, it appears that research addressing work teams in the field of organizational behavior could serve as a foundation (and perhaps "spring-board") for future research in project management. Research addressing work teams in the field of organizational behavior dates back a century (Hull, 1917). Important topics of interest range from team climate (Speroff, 1953) and team structure (Worthy, 1950) to cross functional teams (Cherns, 1976) and risk management (Cecil, Cummings, & Chertkoff, 1973).

In response to this apparent overlap, this investigation's key focus is in determining the relatedness and temporal sequencing of common research to both project management and organizational behavior. In other words, our primary interest is to examine the differences in timing and development of shared concepts regarding "teams" between the organizational behavior and project management disciplines to leverage mutual opportunities. Additionally, this manuscript, with its intense focus on teams, extends the "Behaviour School", one of the seven schools posited by Soderlund (2011) whose foci included organizational behaviour and social interaction between teams. It also extends the work by Kwak and Anbari (2008) whose third of eight "allied disciplines" within the management domain was titled "Organizational Behavior/Human Resources Management".

To begin this inquiry, we first conducted a thematic review of the project management teams literature by identifying important themes that emerged in the project management literature from its inception up to current date. Next, we explored these same themes in the organizational behavior literature to determine the potential overlap between literatures and temporal differences between thematic introductions. Results of these thorough thematic reviews are included in the attached appendix. We ultimately develop a visual model that displays the source of each theme as well as the lag between organizational behavior and project management theme development. In sum, we provide recommendations for future research based on the thematic review as well as quantitative data presented to show current thematic lag and changes in thematic lag across time.

2. Method

To begin, we conducted a review of team-oriented literature from project management's formal inception as an academic discipline in the early 1970's. This was followed by a reciprocal process of identifying emergent themes from groupings of individual articles and by classifying individual articles into emergent themes, within each decade, until the themes maintained their independence from one another. This process concluded with the decade of 2010 to the present. As an example of this process, Posner (1987) provided an early introduction to project leadership. Subsequently, Wilemon (1988) continued the discussion by providing further depth as to the leadership requirements and attributes of successful project managers. Finally, Kerr (1989) discussed project managers' need to recognize team members as an appreciating asset as part of said leader's attributes. As a result, these three papers were coded as a project management leadership theme introduced in 1987.

Segregating specific journal publications or literature domains within specified time-periods for thematic review or trend analysis is not an uncommon practice. Betts and Lansley (1995) examined a 10-year period of papers published within the International Journal of Project Management. Crawford, Pollack, & England (2006) analyzed "trends of emphasis" within two PM flagship journals, Interntional Journal of Project Management and Project Management Journal. Anbari, Bredillet,& Turner (2008) reviewed research literature on project management producing nine major "schools of thought" based on their interpretation of the key premises that drove each one. Finally, utilizing technology, Bredillet (2006) examined project management production via EBSCO Business Source Premier Database and used co-word analysis to ascertain primary trends in the field. Following these researchers' lead then, and as employed by Littau et al. (2010), the following seven PM oriented journals were used for this evaluation: Project Management Journal, International Journal of Project Management, International Journal of Managing Projects in Business, Construction Management and Economics, Journal of Construction Engineering and Management, Automation in Construction, and International Journal of Project Organisation and Management.

Subsequent to the journal pool being identified, a key word search on "team*" (to include teams, teamwork, etc.) was conducted across several key PM journals afore mentioned. Articles that contained "teams" in the keyword, title, or abstract were marked for later review.

As with Littau et al. (2010), editorials, book reviews, and other non-peer reviewed items were discarded scoping our review to peer-reviewed work only. To make this manuscript more comprehensive, we reached back and sourced PM oriented literature in mainstream outlets and conference proceedings, to include works from NASA, prior to the emergence of PM oriented journal outlets in the late 1970s. As such, this search extended beyond the eight specific journals discussed above.

Once these articles were identified, an inductive process of open coding (Strauss and Corbin 1990) was undertaken by two of the authors with project management background. Once both authors had developed their list of broad "team codes" from the articles identified in the key word search, these team codes were then iteratively reexamined by the authorship team. This process is depicted visually in **Figure 1**.

As an example of the process of deriving a theme, "conflict management" emerged from coding across eight different team articles in the PM literature. These eight articles included work from: Wileman (1971), Butler (1973), Thamhain & Wileon (1974, 1974, 1974), Brockman (2013), Anyuur and Kumaraswamy (2016), and Musah and Isha (2017). Therefore, as it was the first paper included in this theme creation, we utilized Wilemon (1971) as the exemplar paper for the conflict management theme as discussed below and documented in the appendix.

The following is an overview of the themes that emerged in our analysis. It is important to note that our manuscript aims to complement, and not duplicate, prior reviews such as Soderlund (2004) and Kwak and Anbari (2009).

3. Teams Research Progression in Project Management and Organizational Behavior

3.1 *Project Management Themes – 1960s*

The decade of the 1960s did not contain any research published in project management journals as said journals did not exist until the 1970s. However, there were forays into "management" of projects which ultimately abetted the establishment of the project management field. Two articles in the latter part of the decade dealt with project managers' leadership style and interpersonal skill (Lawrence & Lorsch, 1967; Hodgetts, 1968). These articles appeared in the Administrative Science Quarterly and the Academy of Management Journal respectively.

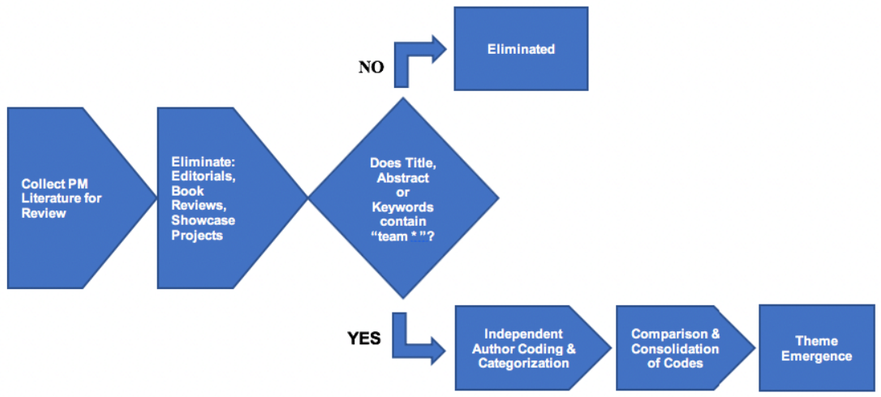

Figure 1 – Theme Construction Flowchart

The former was concerned with "effective and ineffective integrators" - referring to interpersonal skills; while the latter discussed the "authority gap" and how it could be overcome through persuasive abilities. Through a purely management prism, these early studies focusing primarily on managerial patterns of those leading projects seems warranted and appropriate for future field development.

Interestingly, organizational design and project management effectiveness occupied two other notable investigations in this decade. Considering the rapid interest in space exploration of the 1960s, it should be no surprise that Marquis & Straight (1965) working with NASA inquired about project management within its organizational confines as well as external subcontractors. The findings of this effort centered on administrative support and concluded that such staff who reported directly to the project manager improved the project's probability of success. Another article examining organizational design appeared in the Academy of Management Journal (Reeser, 1969) and focused on project outcome problems associated with project-oriented structures as compared to traditional ("functional") organizational structures.

3.2 *Project Management Themes* – 1970s

The decade of the 1970s saw a notable increase in articles discussing project management and the birth of the first journal dedicated to the project management discipline – the Project Management Quarterly (later to become the Project Management Journal). While not intended to be an exhausted list, this decade had several dominant themes emerge from investigations into this new field to include: conflict management, team member management and a continued interest in the leadership styles of project managers.

Initially within this decade, conflict management was examined within NASA's Apollo Space program in the early 1970s by Wilemon (1971) and was included in the Proceedings of the Project Management Institute.

A theoretical paper was offered by Butler (1973) which appeared in the Academy of Management Journal and posited the conflict-prone, dysfunctional nature of project management within a traditionally structured organization. Thamhain & Wilemon offered three studies in this decade which focused on conflict. The first examined various conflict sources to include their causes and intensity which was published in the Proceedings of the Project Management Institute (1974). The second studied the outcomes of five various conflict management modes to include: forcing, confrontation, compromising, smoothing and withdrawal (1975). The last surveyed the four accepted stages in the project life cycle and the degrees of conflict within each (1977).

There were several articles within this decade which comprised the theme "team member management" These articles focused on human resource principles to improve team productivity (Murdick & Schuster, 1976); the lack of training levels of project managers and the negative effects on team member turnover, team conflict and project failure (Rondinelli, 1976); the positive role played by team member collaboration specifically within research and development teams (Aram & Morgan, 1976) and how organizational development can improve team members' trust even when faced with conflicting organizational values of conformity and obedience (Kegan, 1971). Aiding and abetting team member management were two sub-themes of communication and decision making. Borcherding, publishing in the Project Management Quarterly (1978) worked with construction teams to better understand communication flow between teams and within teams.

Decision making within teams was observed in the early part of the decade when Kloman (1972) focused on the Surveyor and Lunar Orbiter projects within NASA and concluded that non-collaborative decision making stymied the projects and complicated the team's efforts.

Continuing with this theme, Baker, Murphy and Fisher (1974) posited that insufficient authority by the project manager often leads to negative project and team outcomes.

Continuing the work begun in the 1960s studying project manager leadership, Morris (1979) published in the Project Management Quarterly the concept of "interface management". He posited that the primary role of project managers was to work within the team acting as boundary manager between the team-tasks of planning, coordinating and controlling. Gemmill & Wilemon (1970) studied sources of project manager influence and types of power exhibited through the prism of "interpersonal influence" and the associated team effects.

Continuing the investigation of interpersonal influence, Gemmill & Thamhain (1974) examined this influence and project performance. Working with Nasa, organizational design was investigated by Chapman (1973). His observation led him to believe that matrix styled organizations often had success with smaller projects but were not equipped to handle large projects such as the projects NASA was accustomed to managing.

3.3 - *Project Management Themes* – 1980s

The 1980s witnessed the initial maturation of the discipline with additional journals launched related specifically to project management. This maturity level was also evidenced through published case studies, depth of examination and study-scope expansion. The themes which emerged where: team structure, project leadership, team climate and team communication.

Through a case study involving Troikas Manufacturing, team structure was investigated by Hoevers (1986) who posited that having line management representatives within manufacturing teams to be an adequate and acceptable project management team form.

Expanding the scope to include the examination of several Swiss projects, Bollinger (1986) concluded by recommending project teams define relationships and responsibilities among team members including external stakeholders in "peripheral areas of concern". The concept of a "devil's advocate" role on a team was also introduced. The concept of "cross functional teams" was also expanded upon by Parker (2003) to include the necessities of rewards and recognition.

Attention was drawn to team climate by Tampoe (1989) within IT projects. He posited that team members must enjoy the right environment and climate within the team to adequately express their skills and abilities.

Team communication was further elaborated on by Barndt (1981) when he offered that communication was necessary for "goal directed behavior" and that communication was free-flowing, but not always an open pipeline either up or down the organizational structure nor the project team to and from the project manager.

Kerr (1989), in his Deloitte award winning article dealing with IT projects and specifically team member growth, presented the notion that the development of skills of those on the project team is as important as attaining various task associated goals. Project leader effectiveness is the last major theme of this decade to be discussed. Elmes and Wilemon (1988) offered that the effectiveness of any project leader may rest upon their understanding of the organization's cultural norms within which they labor. Project managers who become "cultural reactors" are less likely to be perceived as effective. Posner (1987) asked what it took to be a good project manager. His findings centered on 1) problems in managing projects; 2) project manager skills to include traits, behaviors, characteristics, etc. 3) project manager skills and project problems were aligned and connected.

3.4 - *Project Management Themes* – 1990s

Team communication was further elaborated on by Barndt (1981) when he offered that communication was necessary for "goal directed behavior" and that communication was free-flowing, but not always an open pipeline either up or down the organizational structure nor the project team to and from the project manager.

This decade saw a numerical increase in the direction of studies involving teams which were undertaken within the project management field. Effective team communication, including the application of enabling software, was examined by Thomas, Tucker and Kelly (1999). Baccarini (1999), used the "logical framework method" for communicating project milestones to all team members establishing a common definition and baseline for project success. Team leadership was investigated by Newcombe (1996) and Kloppenberg and Petrick (1999). The former focused on the power gap between what is required and necessary during procurement for construction and traditional project teams. The latter connected the "project life-cycle stage completion" and the necessary team member virtues that necessitate each stage.

Fleming and Koppelman (1996) examined cross-functional teams and offered positive and negative outcomes of this design which they labeled "integrated project development teams". Cross functional teams was also studied by Bishop (1999) who posited that in traditional, "functionally" structured organizations, cross-functional teams enjoyed less project success than expected.

Continuing with this theme of team structure, Sommerville and Dalziel (1998) argued that special attention to the "composite project team" structure improved the likelihood of innovation within construction project execution. Similar to the need for innovation, team productivity was also considered by Phillips, Phillips and Bailey (1999). They argued that the best approach for achieving team and project productivity is to complete a sequential module in detail and then analyze contingencies in other, directly related modules.

Motivating and general management of team members comprise another theme of this decade. Tampoe and Thurloway (1993) explored the project manager's and team members' motivations to complete projects on time, within budget and achieve quality objectives. Johns (1995) discussed in his manuscript the "project management method" of managing team member behaviors which are needed to satisfy the needs of their customers. Slabey and Austrom (1998) posited a method toward team building by utilizing an "I Opt" tool revealing four primary styles used by team members to process information and process tasks.

Finishing this decade are two themes which deal with international teams and team awareness of external stakeholders. Schneider (1995) discussed the success of international and intercultural project teams offering advice toward successful outcomes which dealt heavily with methods and instruments used during project execution. Consideration of cultural differences were also said to have contributed a significant portion toward the team's success. Bougromenko (1999) suggests that transportation projects should be appraised by external stakeholders (public sector) resulting in a completion rate of 3.5 to 5 times faster than the norm. This positive outcome was attributed to the team's understanding that the external stakeholders will acutely perceive the project as good or bad after considering the "cost-benefit" ratio of what the project cost to what the project delivered.

3.5 - *Project Management Themes – 2000*

The first decade of the new millennium saw no slowdown in the teams research arena. Leadership within teams became one area of focus for PM researchers. Thamhain's (2004) examined the conditions needed for teams to perform at high levels and found two vitally important aspects at play: professional interest and work support. Team leadership is crucial to supporting both of these aspects. One of project leadership's roles is to engender an environment of participation by all team members, a role Thamhain (2004) referred to as social architects.

Project leadership must ensure a supportive work environment exists to encourage team members to work to their highest aspiration thereby supporting high performance within the team. In a separate study, Thamhain (2004) examined 76 project teams consisting of over 800 project professionals. The study concluded that leadership promoting conditions which gratify both professional and personal needs among team members strongly effects team agility, commitment, and overall function.

Trust on project teams has become another area of interest to PM researchers. Ding and Ng (2009) examined design teams in the China's construction sector. They found that interpersonal trust is enhanced when the traits of social interaction and attitudes on work were identified by project team managers. Their findings suggest that improving the social interactions of team members and fostering a sense of what a correct attitude on work should be leads to increased interpersonal trust, and in turn, increased performance of the design team. Fong and Lung (2007) also found that trust has a positive influence on an organizational member's perceptions of working on a project team. Team integration, or how teams are assembled, work, and collaborate with one another, is also a theme of recent research. Kumaraswamy, Ling, Rahman, and Phng's (2005) study of integrated team traits came showed improved industry performance by an organization through higher quality team integration. This theme will see a greater expansion in the 2010s.

3.6 - *Project Management Themes – 2010*

Research in the 2010s on teams continued to build strongly on themes from the previous decade. On the topic of team leadership, Dwivedula and Bredillet (2010) reported that leadership promoting both organizational growth and professional development help reinforce professional commitment. Interestingly, Thamhain (2013) found that many of these same traits encourage advantageous risk management behaviors by team members, leading to a more unified team. Yang, Huuang, and Wu (2011) studied the relationships between leadership style and project success. Utilizing an industry-wide sample of over 200 projects in Taiwan, their research found that project leaders who employ both transactional and transformational styles can increase the communication and collaboration levels among their team members. These increases in teamwork were found to positively impact overall project performance, particularly in the realm of a project's constraints of stakeholder satisfaction, cost, schedule, and quality.

Along similar lines, Berg and Karlsen (2014) investigated how leadership can help to drive and mature positive emotions within their teams to foster an environment that leads to greater project success. While their study focused on the engineering industry, the findings that positive emotions lead to reductions in stress among team members, well-defined job functions, enhanced creativity, beneficial team relationships, and an overall increase in workplace happiness should be generalizable across the project domain. Research into conflict is nothing new, and good project managers know going in that conflict will be a part of any team function. Good leadership and engendering trust early are two ways to combat the inevitable conflict that will arise. Several studies have explored team conflict on projects. Liu, Chen, Chen, and Sheu (2011) investigated the interpersonal conflict found in information systems development projects in Taiwan. The uncertainty that exists around understanding and satisfying user requirements of the project was found to create interpersonal conflict that negatively affected overall project performance. They suggest limiting conflict around user requirements by requiring a clear communication plan that defines communication formats, requirements, and frequency between the user and the project team. Musah and Isah (2017) looked at conventional areas of conflict and the managerial styles employed to tackle it in the context of manufacturing plants in Malaysia. Their findings suggest that personality differences, scheduling, and communication breakdowns are the most common areas of conflict. Interestingly, the study also found that the compromising style of management was the least used when addressing conflict, rather the integrating style. Although team conflict can create friction among team members, it can also have a financial impact to the project.

Brockman's (2013) work sought to calculate the financial cost to a project by interviewing 74 construction workers in the Midwest of the United States. Interviewees were asked about time associated with the conflict, and then labor hour rates were applied to the time. On average, her study reports that 161 hours and nearly $11,000 are lost per construction project in managing conflict. Research into trust continues to be a strong area for study in the 2010s. A study focusing on the Chinese construction industry by Lau and Rowlinson (2011) investigates trust relationships on projects. 10 projects of varying types, both private and public, were considered to better understand the psychological perception of the trust relationship as well as the underlying importance of trust in working relationships. Not surprisingly, and as the wider psychological body of research has shown (Podsakoff, MacKenzie, Moorman and Fetter, 1990; Moorman, Zaltman and Deshpande, 1992; Clark and Payne, 1997; Lweicki, McAllister, and Bies, 1998; Becerra and Gupta, 2003), their findings revealed a multi-faceted and varied understanding of trust. In addition, they suggest that, since trust is not something innate to strangers working together, it must be promoted in a normative framework with clear policies guiding team membership. Buvik and Rolfsen (2015) also explored the concept of trust building among construction teams in Norway. Importantly, this particular study involved teams with prior working relationships and sought to understand how members developed trust on a new project. The study revealed four important aspects to early team trust development: 1) provide work practices that quickly assimilate team members, 2) endeavor to promote a mutual work attitude among team members, 3) provide clarity on functional role expectations early in the project, and 4) ensure there open and clear channels of communication for all team members. Looking at small military teams, Godé-Sanchez (2010) showed that mutual trust and a shared understanding of a common environment enabled military members to effectively operate in varied environments under a range of circumstances. Project teams can leverage this same ability by developing "…a collective sense of events and interdependency, and…use common knowledge and attitudes" (p. 76).

Anvuur and Kumaraswamy (2015) looked at team climate as an indicator of how well project teams would cooperate with one another. The four factors of common goals, equal status, integrative interactions, and authority support were shown to be vital for team cooperation and a healthy team climate. The study made an empirical test of the interactive effects of these factors utilizing temporary construction project teams as a basis of study. Findings suggested that these four factors were indeed helpful in parsimonious modelling and had high predictive capabilities where team climate is concerned. It is not surprising that these factors are reminiscent of the findings reviewed in the prior sections on trust and team leadership. Creasy and Carnes' (2017) study also examined team climate using the framework of workplace bullying.

Specifically, their study looked at project manager bullying behaviors its effects on a number of team climate concepts such as perceptions of politics, commitment, organizational citizenship behaviors, and conflicts in the work-life domain. The research uncovers several negative impacts of bullying tactics on team performance by project managers as well as non-work-related consequences.

While in its nascent stage in the 2000s, research into team integration expanded quickly in the 2010s. Some of the studies on team integration are purely research oriented, validating team-based instruments and constructs. For instance, Ding, Ng, Wang, and Zou (2012) describe the concepts of team-based self-esteem (TBSE) as differentiated from company-based self-esteem (CBSE). They posit that future research into construction project management and self-esteem should use TBSE, as it has more predictive power than CBSE. Another study by Chiocchio, Grenier, O'Neill, Savaria, and Willms (2012) validate a multi-level instrument for measuring collaborative work, while Nuhn and Helge (2016) investigated team member turnover intentions. Mitropoulos and Memarian's (2012) literature review catalogues the cognitive, affective, and behavioral attributes of construction crew teamwork. Other work is more practical, such as Liang, Wu, Jiang, and Klein's (2012) examination of diversity of personal values on project teams. Their research found that having members with different ideas about project goals or mission are a benefit to the project manager, particularly if the project requires an inventive or otherwise novel approach. Enberg, Lindkvist, and Tell (2010), nuanced this argument in their supposition that although integrated teams can be beneficial, segregated or specialized teams may be what is needed in a complex project. Team reflexivity, or the process by which project team members continually re-evaluate processes in order to change them to meet new project realities, is the focus of Wu, Rivas, and Liao's (2017) work regarding new product development teams (NPD). They find that reflexive NPD teams are better equipped to handle changing market landscapes, can develop better products, utilize novel processes, and more fully understand their competitors.

These findings bear some resemblance to Paylak's earlier (2004) suggestion that specialized "tiger teams" are best suited for solution finding when project problems present themselves. In Hsu, Chang, Klein, and Jiang's (2011) study, teamwork mental models are explored to understand how they affect information systems development projects. They showed how project data from various places, and held by various team members, is brought together and utilized to garner project success. Not surprisingly, their findings indicate that better utilization of information can bear positive influence on project outcomes. Ibrahim, Costello, and Wilkinson (2015), drawing from the construction literature, found support for key characteristics of team integration and illustrated how to better integrate a team. They report that a singular focus on goals, trust and respect, supportive management, good communication, and a "no blame" culture are all important traits for successful team integration. Like earlier findings by Enberg, et al. (2010), Baiden and Price (2011) also found no significant differences in effectiveness among teams of varying levels of integration. They posit that although team integration is a desirable trait, it is certainly not the only trait needed for improving team effectiveness.

Distributed or virtual team research in the project management domain has recently become a topic of research. Bourgault, Daoudi, and Drouin (2014) explored how virtual teams can work collaboratively with their client to improve project success. Close working relationships were found to be advantageous, particularly in complex project situations. Lee-Kelley's (2006) research looked at how different locus of control (LOC) outlooks moderated distributed team members attitudes toward virtual teamwork. LOC was found to be a significant moderator of distributed team attitudes and should be considered by project managers. Both Tabassi, Ramli, and Bakar (2012) and Chiocchio, Rabbat, and Lebel (2015) found that training of team members leads to enhancement in task efficacy and coordination on project collaborative work.

4. Organizational Behavior: Thematic Crossover with Project Management

The fields of organizational behavior and industrial/organizational psychology are rooted in research from psychology and sociology that dates back well over a century. Early research in these dedicated fields began with inquiries such as World War I soldier placement testing and scientific management (Roethlisberger, 1939; Taylor, 1911).

Dedicated research addressing work teams soon followed with many articles addressing the subject by the early-1950's (e.g. Jackson, 1953; Van Zelst, 1952). Early research focused on topics such as team decision-making and conflict management, while more recent work addresses important topics such as team cognition and knowledge emergence (Grand, Braun, Kuljanin, Kozlowski, & Chao, 2016), team reflexivity (Chen, Bamberger, Song, & Vashdi, In Press), and non-linear phenomena in teams (Koopmann, Lanaj, Wang, Zhou, & Shi, 2016). In sum, the literature addressing organizational behavior provides a very deep pool of knowledge upon which future research can build. While the section addressing teams research in project management is a relatively comprehensive thematic review, such review in the field of organizational behavior is simply not reasonable for completion in one manuscript. To illustrate this point, comprehensive reviews of recent achievements in the field are published almost on a nearly bi-decade basis (e.g. Delgado Pina, Romero Martinez, & Gomez Martinez, 2008; Devine, 2002; Guzzo & Dickson, 1996; Kozlowski & Bell, 2013; Maloney, Bresman, Zellmer-Bruhn, & Beaver, 2016). In addition, meta-analyses utilizing hundreds of thousands of participants from hundreds to thousands of studies address important topics in project management such as team diversity (Horwitz & Horwitz, 2007), team trust development (De Jong, Dirks, & Gillespie, 2016), and team conflict (De Dreu & Weingart, 2003) to name a few. Given this complexity, the authorship team utilized the open coded themes developed in the PM thematic review to explore the introduction of these same themes into the OB literature. A brief discussion of OB theme introduction follows with a condensed graphical representation included in included appendix.

Research addressing teams in organizational behavior became mainstream in the early 1950's with foundational work addressing basic issues in team dynamics such as team structure (Worthy, 1950) and team leadership (Baumgartel, 1957). The 1960's provided a more nuanced picture of team dynamics by addressing intrateam phenomena such as team member motivation (Bucklow, 1966), cross-functional team integration (Goldsen, 1960), and team communication (Williges, Johnston, & Briggs, 1966). Research in the 1970's continued the trend of addressing intrateam issues such as intrateam development (Belbin, Aston, & Mottram, 1976), team climate (Howe, 1977), and team training (Gunderson, Rahe, & Arthur, 1972) while also focusing on team diversity (Hill & Rhue, 1974) in conjunction with the civil rights movement.

In contrast, the 1980's brought new foci in the form of international teams (Adler, 1983) and team collaboration (Tjosvold & Yuan, 1989) to address prominent managerial issues of the time. Next, research addressing work teams branches out in the 1990's to address a cornucopia of topics ranging from distributed (Warkentin, Sayeed, & Hightower, 1997) and virtual teams (Lewis, 1998) to trust development (Korsgaard, Schweiger, & Sapienza, 1995) and teamwork improvement (Hatcher & Ross, 1991). More recent work, completed after the year 2000, shows even more branching with an incredibly diverse set of themes ranging from shared mental models (Mathieu, Heffner, Goodwin, Salas, & Cannon-Bowers, 2000) and deep level diversity (Harrison, Price, Gavin, & Florey, 2002) to group faultlines (Thatcher & Patel, 2012) and transient team learning (Vashdi, Bamberger, & Erez, 2012). All indications suggest that this branching will continue as the literature continues to develop beyond basic team dynamics concepts toward nuanced eccentricities of teams working in different contexts and unique team structures.

4. Results

In sum, the fields of project management and organizational behavior address similar phenomena in a similar order, with the substantial issue (and primary focus of this investigation) being the lag between a topic's introduction in the field of organizational behavior and its subsequent discussion in project management. When addressing temporal issues regarding thematic introductions in both organizational behavior and project management, early concepts in project management, such as team leadership (OB - Baumgartel, 1957; PM – Lawrence & Lorsch, 1967), general project management (OB – Marschak, 1955; Lawrence & Lorsch, 1967), and conflict management (OB – Guetzkow & Gyr, 1954; PM – Wilemon, 1971), were discussed in the field of organizational behavior approximately 14.6 years prior to their thematic emergence in project management (See **Table 1** for specific details). In the next decade (1980's), we see an interesting change as concepts such as team structure (OB – Stogdill & Shartle, 1948; Bollinger, 1986), cross-functional teams (OB – Goldsen, 1960; PM – Parker, 1986), and team climate (OB – Speroff,

1953; PM – Tampoe, 1989) rose to prominence approximately 29 years after their discussion in OB showing a marked increase in time lag. Next, the 1990's shows a similar pattern as OB concepts such as international teams (OB – Edstrom & Galbraith, 1977; PM – Schneider, 1995), team member motivation (OB – Deutsch, 1959; PM – Tampoe & Thurloway, 1993), and inter-team development (OB – Fiedler, 1967; PM – Slabey & Austrom, 1998) predated PM themes by around 28.8 years.

1970's	OB	PM
Conflict Management	1954	1971
Team Leadership	1957	1967
Team Communication	1963	1978
Project Management	1955	1967
Team Decision Making	1953	1972
Mean Lag	14.6	
Lag SD	3.6	

1980's	OB	PM
Project Management	---	---
Team Communication	---	---
Project Coordination	1968	1986
Team Climate	1953	1989
Team Structure	1948	1986
Project Success	1961	1988
Cross-Functional Teams	1960	1986
Mean Lag	29	
Lag SD	8.1	

1990's	OB	PM
Cross-Functional Teams	---	---
Team Leadership	---	---
Team Communication	---	---
International Teams	1977	1995
Team Diversity	1974	1998
Strategic Spacial Planning	1965	1999
Motivation	1959	1993
Team Productivity	1972	1999
Inter-Team Development	1967	1998
Mean Lag	29.2	
Lag SD	6.0	

2000's	OB	PM
Team Leadership	---	---
Team Orientation	1967	2007
Team Performance	1961	2005
Distributed Teams	1997	2006
Mean Lag	31	
Lag SD	19.2	

2010's	OB	PM
Team Conflict	---	---
Team Leadership	---	---
Team Communication	---	---
Distributed Teams	---	---
Team Climate	---	---
Team Collaboration	1989	2010
Risk Management	1973	2013
Teamwork Improvement	1991	2012
Project Commitment	1987	2010
Trust Development	1988	2015
Teamwork Quality	1991	2010
Team Effectiveness	1976	2011
Intra-Team Development	1976	2010
Team Turnover	1989	2016
Team Self-Esteem	1998	2012
Team Adaptability	1997	2017
Mean Lag	25.5	
Lag SD	7.9	

Table 1 - OB and PM Teams Literature 1950-2017

Entering the new millennium, we hope to see a marked decrease in the lag between OB and PM teams research given the overall rise in PM research activity. Unfortunately, we ultimately see an increase in the lag between fields as concepts such as team performance (OB – Wiest, Porter, & Ghiselli, 1961; PM – Kumaraswamy et al., 2005), distributed teams (OB – Warkentin et al., 1997; PM – Lee-Kelley, 2006), and team orientation (OB – Lawrence & Lorch, 1967; PM – Fong & Lung, 2007) display an approximately 34 year difference in thematic emergence. Finally, we see a slight contraction in the lag between thematic introductions from 2010 to present with and average lag of 22.6 years when addressing topics such as team turnover (OB – O'Reilly III, Caldwell, & Barnett, 1989; PM – Nuhn & Wald, 2016), risk management (OB – Cecil, Cummings & Chertkoff, 1973; PM – Thamhain, 2013), and team adaptability (OB – Wagerman, 1997; PM – Wu, Amaya Rivas, & Liao, 2017).

Surprisingly, the average lag across all five decades of research in the two disciplines slightly exceeds a quarter of a century (25.6 years). In addition, PM literature rarely cites existing work from OB when introducing a new concept related to teams. This exclusion has resulted in large scale duplication of research efforts and missed opportunities. For example, based on a database search, a total of 2,970 articles discuss intra-team dynamics during the lag between OB discussion in1976 and PM discussion in 2010. Addressing this discrepancy would allow PM researchers to focus on nuances of dedicated project team dynamics rather than duplication of prior work addressing teams.

Interestingly, as seen in **Figure 2**, the distribution of the studied topics across the two disciplines has created a type of "accordion effect" in their distribution. Topics had a shorter lag between introduction in the OB field and discussion in the PM field in early years as well as the most recent years reviewed in this study. Conversely, there is a larger gap between the original introduction of the topic in OB and its study in PM during the "middle" years of the investigation. With a few exceptions, this accordion effect seems to hold with most topics. This accordion effect is likely due to the fact that in the early days of teams research, both OB and PM investigators focused on some of the first "big rocks" topics. These more essential teams topics were easy and obvious targets for researchers in both disciplines. They correspond to the tighter intervals in the early years of research shown in Figure 2. However, as time moved on, the volume of OB research substantially outpaced PM widening the gap between fields.

Recent interest in "soft skills" research in both the OB and PM field has perhaps had an impact on the shortened intervals towards the end of the study period shown in **Figure 2**. As OB has introduced a soft skill topic, PM research has responded more quickly in investigating similar phenomena. The shrinking research intervals in recent years likely points to maturing trend in the PM field as more academic research is conducted and the number of researchers grows. As the PM discipline matures, we expect that not only will there be more topics studied between the two fields, but on average, the gap between disciplines will get smaller.

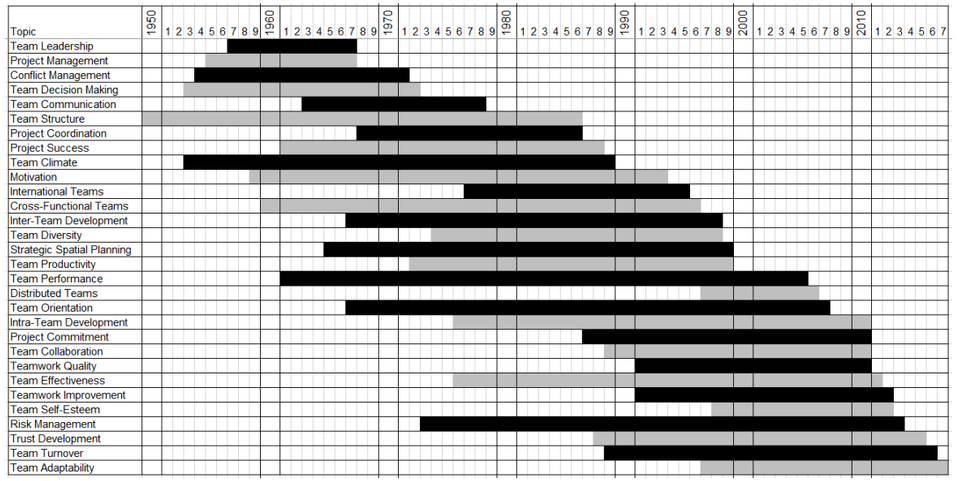

Figure 2 - OB and PM Teams Literature 1950-2017

6. Discussion

Given that the above evidence shows the possibility of integrating the organizational behavior and project management literatures, work in other fields show the benefit of doing so. For the first several decades of its existence, the field of entrepreneurship existed it its own silo with very few efforts to incorporate outside work (Stevenson & Jarillo, 1990). As a result, overlap and duplication abounded between the fields of entrepreneurship and strategic management. However, later efforts were made to search for similarities between fields and use those similarities to leverage research opportunities in both areas (e.g. Dess, Lumpkin, & McGee, 1999; Kraus & Kauranen, 2009). This recognition allowed the field of entrepreneurship to focus on specific issues related to entrepreneurs and their organizations rather than organizational strategy in general. For example, the recommendations made by Dess and colleagues (1999) lead entrepreneurship scholars to focus on behavioral patterns of entrepreneurial employees such as entrepreneurial orientation (Wiklund & Shepherd, 2005), entrepreneurial marketing (Kocak & Abimbola, 2009), and family business teams (Schjoedt, Monsen, Pearson, Barnett, & Chrisman, 2012). In addition, the field of strategic management benefitted from this differentiation with the ability to focus on strategic issues in established organizations such as corporate entrepreneurship (Barringer & Bluedorn, 1999) and intrapreneurship (Alpakan, Bulut, Gunday, Ulusoy, & Kilic, 2010). Thus, both fields matured at a faster pace by exploring the most pressing phenomena for their given field. We contend that the fields of project management would benefit by integrating and differentiating appropriately in a similar fashion.

7. Future Research

While it is simply not feasible to review all progress in organizational behavior that has not been addressed by project management (see reviews for further reading; e.g. Delgado Pina, Romero Martinez, & Gomez Martinez, 2008; Devine, 2002; Guzzo & Dickson, 1996; Kozlowski & Bell, 2013; Maloney, Bresman, Zellmer-Bruhn, & Beaver, 2016), we provide several pointed recommendations as examples for possible integration of organizational behavior research. First, it is important to recognize that some researchers have already begun this important task of integrating advanced OB topics into PM research. Research addressing shared mental models (e.g. Mathieu, et al., 2000) addresses the extent to which team members have a common understanding of the tasks that is to be performed and the level of teamwork that is involved. This would be very relevant to project teams in that project teams often must balance conflicting demands such as budget, timeline, scope, etc. that may not always be compatible with one another. In response, Hsu and colleagues (2011) began the integration process by exploring the impact of team mental models on information utilization and project performance. This example shows the marked benefit of a shared research agenda.

Second, research addressing transient team learning (Vashdi et al., 2012) is very relevant to project teams given that project teams are often constructed for a finite duration. Transient team learning assesses learning processes in teams that are either short-term or involve regular changes in team structure. Given the fact that most project teams utilize a somewhat temporary and/or transitory structure, understanding learning processes in this situation is certainly relevant to project management researchers and practitioners alike and could lead to breakthroughs in terms of transferring knowledge between projects.

Third, research addressing group fault lines (Thatcher & Patel, 2012) and deep-level diversity (Harrison et al., 2002) provide several opportunities for project management research. Given that many project management teams utilized a cross-functional composition (e.g. Bishop, 1999), a possibility exists that non-visual team member characteristics could lead to cohesion or fracturing among project teams. Deep-level diversity suggests that the most important individual differences are those that cannot be seen with the naked eye (Thatcher & Patel, 2012). When designing teams, the only "diversity" factors considered are those that are at the surface-level. Cross-functional teams are likely to contain deep-level diversity which could lead to creativity or create fractures within the group called group faultlines. Group faultlines are factors that tend to fracture a group into several factions that rarely intermingle. The impact of this phenomenon on project teams is clear and could guide future project management research by assessing individual differences among team members to assess mean levels as well as dispersion among individual difference factors. All of the above suggestions would allow project management scholars to avoid duplication of work in organizational behavior while addressing project-specific phenomena that are critical to project team functioning.

8. Conclusion

As shown by the compilation of evidence above, it appears that the fields of OB and PM would mutually benefit from a shared research agenda regarding general team dynamics. This shared agenda would help to prevent retheorizing and retesting of shared phenomena that currently exists between the OB and PM fields.

As a result, we hope that future research in OB can focus on general psychological phenomena in the workplace while PM can focus on project-specific phenomena. OB provides a mature foundation regarding many general team and team related concepts. Those concepts, applied to PM research, provide opportunities for rapid advancement in PM theory, research, and practice. In addition, working from a shared agenda would also allow PM researchers to focus on the intricacies of PM teams, rather than simply investigating general team dynamics. By doing so, scholarly PM output could focus the most pressing needs of practicing project managers, as opposed to rebuilding foundational knowledge on teams that has already exists in OB.

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APPENDICES

Appendix: Thematic Review Table

TYPE	YEAR	THEME(s)	PAPER TITLE	AUTHORS	JOURNAL
PM	1967	Team Leadership; Project Management	"Effective and ineffective Integrators" - interpersonal skills	Lawrence & Lorsch	Sloan Management Review
PM	1968	Project Management	"Authority Gap" (overcoming it) Personality / persuasive ability	Hodgetts	Academy of Management Journal
PM	1970	Project Management	"Types of Power and sources of influence" (interpersonal influence)	Gemmill & Wilemon	Sloan Management Review
PM	1971	Conflict Management	"Conflict in the Apollo space program"	Wilemon	Proceedings of the Project Management Institute
PM	1972	Team Decision Making	"Perceived success in 2 space program initiatives (Surveyor & Lunar Orbiter) projects	Kloman	NASA sponsored; Gov't pub
PM	1973	Conflict Management	"Theortical paper on the causes of conflict in project management"	Butler	Academy of Management Journal
PM	1974	Team Decision Making	"Factors that were associated with perceived project success and failure "insufficient PM authority leads to failure"	Baker, Murphy and Fisher	National Technical Information Services
PM	1974	Project Management	"Interpersonal influence and project performance"	Gemmill & Thamhain	IEEE Transactions of Eng Mgmt
PM	1974	Conflict Management	"Causes and intensity of various conflict sources"	Thamhain & Wilemon	Proceedings of the Project Management Institute
PM	1974	Conflict Management	"Degrees of conflict in the four generally accepted project life cycles"	Thamhain & Wilemon	Sloan Management Review
PM	1974	Conflict Management	"Examines the effects of 5 conflict handling modes (forcing, confrontation, compromising, smoothing and withdrawal)	Thamhain & Wilemon	Proceedings of the Project Management Institute
PM	1978	Team Communication	"Better understanding of communication flow as it relates to project mgmt teams"	Borcherding	Project Management Quarterly
PM	1979	Team Leadership	"interface management" which is the PM's job in planning, coordinating and controlling the work of others at project interfaces" (boundary management)	Morris	Project Management Quarterly
PM	1981	Team Communication	"Upward Communication Filtering in the Project Management Environment"	Barndt	Project Management Quarterly
PM	1986	Team Structure	"Successful project management"	Bollinger	International Journal of Project Management
PM	1986	Project Coordination	"Troika case: Experiences with project coordination teams in a manufacturing company"	Hoevers	International Journal of Project Management
PM	1986	Cross-Functional Teams	"Interdisciplinary collaboration in urban design"	Parker	International Journal of Project Management
PM	1987	Project Leadership	"What it takes to be a good Project Manager"	Posner	Project Management Journal
PM	1988	Project Leadership	"Organizational Culture and Project Leader Effectiveness"	Wilemon	Project Management Journal
PM	1989	Team Climate	"Project managers do not deliver projects, teams do"	Tampoe	International Journal of Project Management
PM	1993	Motivation	"Project management: the use and abuse of techniques and teams (reflections from a motivation and environment study)"	Tampoe & Thurloway	International Journal of Project Management
PM	1995	International Teams	"Project management in international teams: Instruments for improving cooperation"	Schneider	International Journal of Project Management
PM	1996	Cross-Functional Teams	"Integrated project development teams: another fad … or a permanent change"	Fleming & Koppelman	International Journal of Project Management
PM	1996	Team Leadership	"Empowering the Construction Project Team"	Newcombe	International Journal of Project Management
PM	1998	Inter-Team Development	"Organizational Engineering Principles in Project Management"	Slabey & Austrom	Project Management Journal
PM	1998	Team Structure	"Project Teambuilding - the applicability of Belbin's team-role self-perception inventory"	Sommervile & Dalziel	Project Management Journal
PM	1999	Team Communication	"The Logical Framework Method for Defining Project Success"	Baccarini	Project Management Journal
PM	1999	Cross-functional Team	"From My Experience: Cross-Functional Project Teams in Functionally Aligned Organizations"	Bishop	Project Management Journal
PM	1999	Strategic Spatial Planning	"Defending local interests in project management: from team to decision making level"	Bougromenko	International Journal of Project Management
PM	1999	Team Leadership	"Leadership in Project Life Cycle and Team Character Development"	Kloppenborg & Petrick	Project Management Journal
PM	1999	Team Productivity	"Management of Modular Projects: A Templating Approach"	Phillips, Phillips & Bailer	Project Management Journal
PM	1999	Team Communication	"Compass: An Assessment Tool for Improving Project Team Communications"	Thomas	Project Management Journal
PM	2004	Team Leadership	"Team leadership effectiveness in technology-based project environments."	Thamhain	Project Management Journal
PM	2004	Team Performance	"Linkages of project environment to performance: lessons for team leadership"	Thamhain	International Journal of Project Management
PM	2005	Team Performance	"Constructing Relationally Integrated Teams"	Kumaraswamy et al.	Journal of Construction Engineering & Management
PM	2006	Distributed Teams	"Locus of control and attitudes to working in virtual teams"	Lee-Kelley	International Journal of Project Management
PM	2007	Team Orientation	"Interorganizational Teamwork in the Construction Industry"	Fong and Lung	Journal of Construction Engineering & Management
PM	2010	Project Commitment	"The relationship between organizational and professional commitment in the case of project workers: Implications for project management"	Dwivedula and Bredillet	Project Management Journal
PM	2010	Team Collaboration	"Leveraging coordination in project-based activities: What can we learn from military teamwork?"	Godé-Sanchez	Project Management Journal
PM	2010	Teamwork Quality	"Knowledge integration at the edge of technology: On teamwork and complexity in new turbine development"	Lindvist and Tell	International Journal of Project Management
PM	2010	Trust Development	"Personal Construct-Based Factors Affecting Interpersonal Trust in a Project Design Team"	Zhijun and Fungfai	Journal of Construction Engineering & Management
PM	2011	Team Effectiveness	"The effect of integration on project delivery team effectiveness "	Baiden and Price	International Journal of Project Management
PM	2011	Team Communication	"Exploring the impact of team mental models on information utilization and project performance in system development"	Hsu, et al.	International Journal of Project Management
PM	2011	Trust	"The implications of trust in relationships in managing construction projects"	Lau and Rowlinson	International Journal of Managing Projects in Business
PM	2011	Team Leadership	"The association among project manager's leadership style, teamwork and project success"	Li-Ren et al	International Journal of Project Management
PM	2011	Team Conflict	"Relationships among interpersonal conflict, requirements uncertainty, and software project performance"	Liu et al.	International Journal of Project Management
PM	2012	Team Self Esteem	"Distinction between Team-Based Self-Esteem and Company-Based Self-Esteem in the Construction Industry"	Ding et al.	Journal of Construction Engineering & Management
PM	2012	Team Diversity	"The impact of value diversity on information system development projects"	Liang et al.	International Journal of Project Management
PM	2012	Team Collaboration	"The effects of collaboration on performance: a multilevel validation in project teams"	O'Neill et al.	International Journal of Project Organisation and Management
PM	2012	Teamwork Improvement	"Effects of training and motivation practices on teamwork improvement and task efficiency: The case of construction firms "	Tabassi et al.	International Journal of Project Management
PM	2013	Conflict Management	"Interpersonal Conflict in Construction: Cost, Cause, and Consequence"	Brockman	Journal of Construction Engineering and Management
PM	2013	Risk Management	"Managing Risks in Complex Projects"	Thamhain	Project Management Journal
PM	2014	Team Leadership	"How project managers can encourage and develop positive emotions in project teams"	Berg and Karlsen	International Journal of Managing Projects in Business
PM	2014	Distributed Teams	"The client's influence on collaborative and distributed project success"	Bourgault et al.	International Journal of Project Organisation and Management
PM	2015	Trust Development	"Priorities and trust development in project teams – A case study from the construction industry"	Buvik and Rolfsen	International Journal of Project Management
PM	2015	Team Collaboration	"Multi-Level Efficacy Evidence of a Combined Interprofessional Collaboration and Project Management Training Program for Healthcare Project Teams"	Chiocchio, et al.	Project Management Journal
PM	2015	Team Integration	"Key indicators influencing the management of team integration in construction projects"	Ibrahim et al.	International Journal of Managing Projects in Business

TYPE	YEAR	THEME(s)	PAPER TITLE	AUTHORS	JOURNAL
PM	2016	Conflict Management	"Effects of Teamwork Climate on Cooperation in Crossfunctional Temporary Multi-Organization Workgroups"	Anyanr and Kumaraswamy	Journal of Construction Engineering & Management
PM	2016	Team Turnover	"Antecedents of team turnover intentions in temporary organizations"	Nuhn and Wald	International Journal of Managing Projects in Business
PM	2017	Team Effectiveness	"The effects of workplace bullying on team learning, innovation and project success as mediated through virtual and traditional team dynamics"	Creasy and Carnes	International Journal of Project Management
PM	2017	Conflict Management	"Sources of conflict and conflict management styles in temporary work environment: a case of plant turnaround maintenance workers"	Musah and Isha	International Journal of Project Organisation and Management
PM	2017	Team Adaptability	"Influential Factors for Team Reflexivity and New Product Development"	Wann-Yih et al.	Project Management Journal
OB	1948	Team Structure	"Methods for determining patterns of leadership behavior in relation to organizational structure and objectives"	Stogdill & Shartle	Journal of Applied Psychology
OB	1949	Team Climate	"Problems of interpersonal relations in research on groups"	Polansky et al.	Human Relations
OB	1950	Team Structure	"Organizational structure and employee morale"	Worthy	American Sociological Review
OB	1953	Team Climate	"Empathetic ability and accident rate among steel workers"	Speroff	Personnel Psychology
OB	1953	Decision Making	"Methods of conducting critiques of group problem-solving performance"	Torrance	Journal of Applied Psychology
OB	1954	Conflict Management	"An analysis of conflict in decision-making groups"	Guetzkow & Gyr	Human Relations
OB	1955	Project Management	"Elements for a theory of teams"	Marschak	Management Science
OB	1957	Team Leadership	"Leadership style as a variable in research administration"	Baumgartel	Administrative Science Quarterly
OB	1960	Cross Functional Teams	"Interdisciplinary team research: methods and problems"	Goldsen	American Sociological Review
OB	1961	Project Management	"Some team models of a sales organization"	McGuire	Management Science
OB	1961	Project Success	"Relationship between individual proficiency and team performance and efficiency"	Wiest, Porter, & Ghiselli	Journal of Applied Psychology
OB	1963	Decision Making	"The effect of group participation on brainstorming effectiveness for 2 industrial samples"	Dunnette et al.	Journal of Applied Psychology
OB	1963	Team Communication	"An interactionist looks at the environment"	Sells	American Psychologist
OB	1965	Team Leadership	"Managerial leadership styles in problem-solving conferences"	Delbecq	Academy of Management Journal
OB	1965	Strategic Spatial Planning	"Intraorganizational bargaining in labor negotiations"	McKersie, Perry, & Walton	Journal of Conflict Resolution
OB	1966	Motivation	"A new role for the work group"	Bucklow	Administrative Science Quarterly
OB	1966	Conflict Management	"Conflict in organization: A re-examination"	Litterer	Academy of Management Journal
OB	1966	Team Communication	"Role of verbal communication in teamwork"	Williges et al.	Journal of Applied Psychology
OB	1967	Motivation	"Goal setting as a means of increasing motivation"	Bryan & Locke	Journal of Applied Psychology
OB	1967	Team Leadership	Understanding project authority: "Concept changes manager's traditional role"	Cleland	Business Horizons
OB	1967	Inter-Team Development	"The effect of inter-group competition on group member adjustment"	Fiedler	Personnel Psychology
OB	1967	Team Orientation	"Differentiation and integration in complex organizations"	Lawrence & Lorsch	Administrative Science Quarterly
OB	1968	Team Leadership	"Leadership techniques in the project organization"	Hodgetts	Academy of Management Journal
OB	1968	Project Coordination	"Team performance as a function of team arrangement and work load"	Johnson & Briggs	Journal of Applied Psychology
OB	1969	Team Leadership	"Leadership styles of structure and consideration and managerial effectiveness"	Greenwood & McNamara	Personnel Psychology
OB	1969	Project Success	"Task structure, work structure, and team performance"	Naylor & Dickson	Journal of Applied Psychology
OB	1970	Motivation	"Management and motivation"	Hamnerton	California Management Review
OB	1970	Project Management	"The project manager: Anomalies and ambiguities"	Wilemon & Cicero	Academy of Management Journal
OB	1972	Team Productivity	"Group productivity, drive, and cohesiveness"	Stogdill	Organizational Behavior & Human Performance
OB	1973	Risk Management	"Group composition and choice shift: implications for administration"	Cecil, Cummings, & Chertkoff	Academy of Management Journal
OB	1974	Cross Functional Teams	"The impact of interdisciplinary teams on organizational relationships"	Fry & Miller	Sociological Quarterly
OB	1974	Team Diversity	"Attitudes and behaviors of black and white supervisors in problem solving groups"	Hill & Rhue	Academy of Management Journal

TYPE	YEAR	THEME(s)	PAPER TITLE	AUTHORS	JOURNAL
OB	1975	Team Communication	"Developing team effectiveness by eliminating supervisor/subordinate gap in role perceptions"	Alpander	Human Resource Management
OB	1976	Team Decision Making	"The role of project team collaboration in R&D performance"	Aram & Morgan	Management Science
OB	1976	Intra-Team Development	"Building effective management teams"	Belbin et al.	Journal of General Management
OB	1976	Cross Functional Teams	"Principles of sociotechnical design"	Cherns	Human Relations
OB	1976	Team Effectiveness	"The interaction of task design and group performance strategies in determining group effectiveness"	Hackman, Brousseau, & Weiss	Organizational Behavior & Human Performance
OB	1976	Project Success	"Factors influencing innovation success at the project level"	Rubenstein et al.	Research Management
OB	1976	Motivation	"Management modeling training to improve morale and customer satisfaction"	Smith	Personnel Psychology
OB	1977	Cross Functional Teams	"Multiskilled work teams: Productivity benefits"	Aquilano	California Management Review
OB	1977	Project Success	"Team structure and success as related to cohesiveness and leadership"	Bird	Journal of Social Psychology
OB	1977	International Teams	"Transfer of managers as a coordination and control strategy in multinational organizations"	Edstrom & Galbraith	Administrative Science Quarterly
OB	1977	Team Climate	"Group climate: An exploratory analysis of construct validity"	Howe	Organizational Behavior and Human Perf
OB	1978	Team Productivity	"The role of team and task characteristics in R&D team collaborative problem solving and productivity"	Dailey	Management Science
OB	1978	Team Climate	"Role perceptions, organizational climate, and satisfaction in newly created organizational subunits"	Ford & Jschofsky	Academy of Management Proceedings
OB	1978	Team Effectiveness	"Improving the performance effectiveness of groups through a task-contingent selection of intervention strategies"	Herold	Academy of Management Review
OB	1981	Strategic Spatial Planning	"Inter-location technical communication in a geographically dispersed research organization"	Tomlin	R&D Management
OB	1983	International Teams	"Cross-cultrual management research"	Adler	Academy of Management Review
OB	1984	Team Effectiveness	"Groups in context: A model of task group effectiveness"	Gladstein	Administrative Science Quarterly
OB	1987	Project Commitment	"Diffusibility of blame: Effects on persistence in a project"	Leatherwood & Conlon	Academy of Management Journal
OB	1988	Risk Management	"Groups, responsibility, and risk taking in business organizations"	Mellema	Journal of Business Ethics
OB	1988	Trust Development	"Building trust into corporate relationships"	Sinetar	Organizational Dynamics
OB	1989	Risk Management	"Agency theory: An assessment and review"	Eisenhardt	Academy of Management Review
OB	1989	International Teams	"International managers as team leaders"	Marsick, Turner, & Cederholm	Management Review
OB	1989	Team Turnover	"Work group demography, social integration, and turnover"	O'Reilly III, Caldwell, & Barnett	Administrative Science Quarterly
OB	1989	Team Collaboration	"Productive organizational collaboration: The role of values and cooperation"	Tjosvold & Yuan	Journal of Organizational Behavior
OB	1991	Intra-Team Development	"The development of intragroup norm and the effects of interpersonal and structural challenges"	Bettenhausen & Murnighan	Administrative Science Quarterly
OB	1991	Project Commitment	"Risk, commitment, and project abandonment"	Devaney	Journal of Business Ethics
OB	1991	Teamwork Improvement & Quality	"From individual incentives to an organization-wide gainsharing plan: Effects on teamwork and product quality"	Hatcher & Ross	Journal of Organizational Behavior
OB	1991	Team Turnover	"Some differences make a difference: Individual dissimilarity and group heterogeneity as correlates of recruitment promotions, and turnover"	Jackson et al.	Journal of Applied Psychology
OB	1995	Teamwork Improvement	"Increasing coping resources at work: A field experiment to increase social support, improve work team functioning, and enhance employee mental health"	Heaney, Price, & Rafferty	Journal of Organizational Behavior
OB	1995	Intra-Team Development	"A multimethod examination of the benefits and detriments of intragroup conflict"	Jehn	Administrative Science Quarterly
OB	1995	Trust Development	"Building commitment, attachment, and trust in strategic decision-making teams: The role of procedural justice"	Korsgaard, Schweiger, & Sapienza	
OB	1997	Team Adaptability	"Critical success factors for creating superb self-managing teams"	Wagerman	Organizational Dynamics
OB	1997	Distributed Teams	"Virtual teams versus face-to-face teams: An exploratory study of a web-based conference system"	Warkentin, Sayeed, & Hightower	Decision Sciences

TYPE	YEAR	THEME(s)	PAPER TITLE	AUTHORS	JOURNAL
OB	1998	Team Collaboration	"Beyond teams: Toward an ethic of collaboration"	Haskins, Jeanne, & Rosenblum	Organizational Dynamics
OB	1998	Teamwork Improvement	"Beyond teams: Toward an ethic of collaboration"	Haskins, Liedtka, & Rosenblum	Organizational Dynamics
OB	1998	Team Diversity	"Diverse self-directed work teams: Developing strategic initiatives for 21st century organizations"	Hickman, & Creighton-Zollar	Journal of Applied Psychology
OB	1998	Trust Development	"The experience and evolution of trust: Implications for cooperation and teamwork"	Jones & George	Academy of Management Review
OB	1998	Teamwork Quality	"Putting the "team" into teamwork: Alternative theoretical contributions for contemporary managers"	Lembke & Wilson	Human Relations
OB	1998	Team Self-Esteem	"Predicting voice behavior in work groups"	LePine & Van Dyne	Journal of Applied Psychology
OB	1998	Distributed Teams	"Membership and management of a 'virtual' team: The perspectives of a research manager"	Lewis	R&D Management
OB	1998	Team Orientation	"Team orientation, self-orientation, and diversity in task groups"	Watson, Johnson, & Merritt	Group & Organization Management
OB	1999	Team Diversity	"Exploring the black box: An analysis of work group diversity, conflict, and performance"	Pelled, Eisenhardt, & Xin	Administrative Science Quarterly
OB	1999	Team Adaptability	"The timing of adaptive group responses to nonroutine events"	Waller	Academy of Management Journal

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