**Rascunho**

**(1983) Task interdependence and job design: test of a theory – Kiggundu, M N**

“Drawing from the literature review cited above, Kiggundu (1981) de-
fined task interdependence as the connectedness between jobs such that performance of one depends on the successful performance of the other.”

“Initiated task interdependence can be defined as the extent to which work flows from one particular job to one or more other jobs such that the successful performance of the latter de- pends on the initiating job. Received task interdependence, on the other hand, is the extent to which a person in a particular job is affected by the workflow from one or more other jobs.”

“Task interdependence was also conceptualized as a multidimensional concept with three subdimensions, namely (1) scope, (2) resources, and (3) criticality. Scope is the breadth of interconnectedness of a particular job with other jobs.”

“Resources is the degree to which the interdependence between two or more jobs involves receiving or giving resources necessary to do the job. These resources may include materials, tools, and equipment (Jenkins, Naddler, Lawler, & Cummann, 1975), information or instruction (Billings, Kilimoski, & Breaugh, 1977), and money, raw materials, personnel, or programs (Aiken & Hage, 1968).”

“Criticality is the extent to which the interdependence between the focal job and one or more other jobs is crucial for the performance of the focal job.”

“Thomas (1957) found that when workers facilitate the work of others, they experience a sense of responsibility. This results from expectations specifying that the initiating workers perform their tasks so that the task performance of others is maximally facilitated and minimally hindered.“

“Several studies support the motivational potential of initiated task interdependence. Kahn et al. (1964) argue that interdependence creates some pressure that arouses in the focal person a psychological force of some magnitude and direction. Lawler, Porter, and Tannenbaum (1968) found that managers' affective responses were more positive for self- initiated interactions than for other-initiated interactions. Specifically, the managers reported self-initiated interactions to be more satisfying, valuable, interesting, and precise than other-initiated interactions.”

“Initiated task interdependence is hypothesized to be potentially motivating, but received task interdependence has the opposite effect.”

“increased received task interdependence leads to a decrease in autonomy, and therefore indirectly reduces motivation and work satisfaction.”

“This suggests that employees react positively to task interdependence when it involves providing resources to others and when such interdependence is critical for the successful performance of others' jobs.”

“The expected negative relationships between received task interdependence and the outcomes were not found.”

**(2000) Multilevel theory, research, and methods in organizations – Kozlowski, S. W. J.
Klein, K. J.**

“The macro perspective is rooted in its sociological origins. It assumes that there are substantial regularities in social behavior that transcend the apparent differences among social actors. Given a particular set of situational constraints and demographics, people will behave similarly. Therefore, it is possible to focus on aggregate or collective responses and to ignore individual variation. In contrast, the micro perspective is rooted in psychological origins. It assumes that there are variations in individual behavior, and that a focus on aggregates will mask important individual differences that are meaningful in their own right. Its focus is on variations among individual characteristics that affect individual reactions.”

“Multilevel theory building presents a substantial challenge to organizational scholars trained, for the most part, to "think micro" or to "think macro" but not to "think micro and macro"-not, that is, to "think multilevel." Our goal is to explain fundamental issues, synthesize and extend existing frameworks, and identify theoretical principles to guide the development and evaluation of multilevel models.
”

“By definition, multilevel models are designed to bridge micro and macro perspectives, specifying relationships between phenomena at higher and at lower levels of analysis (for example, individuals and groups, groups and organizations, and so on).”

**(2001) Reflexion on shared cognition – Cannon-Bowers, Janis;
Salas, Eduardo**

“Therefore, the concept of shared cognition can help us to explain what separates effective from ineffective teams by suggesting that in effective teams, members have similar or compatible knowledge, and that they use this knowledge to guide their (coordinated) behavior.”

“shared cognition research can help establish an understanding of the elements of effective teamwork, which can in turn lead to better interventions for improving team performance.”

“Turning first to task-specific knowledge, theories holding that team members need to share task-specific knowledge typically argue that this type of shared knowledge allows team members to take action in a coordinated manner with- out the need to communicate overtly (e.g., see Cannon-Bowers et al., 1993).”

“While this category (similar/identical) is related to the first (shared/overlapping),
it is slightly different. The first category implies that there is a knowledge base associated with the task, and that a
portion of that knowledge base must be common to members. In this case, we mean that certain attitudes and/or beliefs must be similar in team members to drive effective performance”

“a multidisciplinary team where each member brings specialized expertise to the problem. In such a case, it might be most important that team members have accurate expectations for themselves, their teammates and the task to guide behavior. Such expectations may be derived from dissimilar knowledge, the fact that it leads to complementary behavior causes us to include it in our definition of shared cognition.”

“In many high performance teams, such as mili-
tary combat teams, the systems and tasks are so complex, that it would be impossible for any single team member to hold all the knowledge required to succeed. In such cases, team members' knowledge is specialized and distributed. Importantly then, team members are forced to coordinate since task suc- cess depends on the knowledge of several members.”

**(2005) When Collective- and Self-Efficacy Affect Team Performance: The Role of Task Interdependence – Katz-Navon, T. Y.**

“Teams are two or more individuals who work together toward the accomplishment of a common goal in organizations (Hackman, 1990).”

“The lowest level of interdependence is when each team member makes a contribution to the team output without the need for direct interaction with other team members. In such cases, team performance is measured as the sum of individual performances. On the other side of the spectrum, when tasks are highly interdependent, team members must interact with each other to perform the team task, and the individual contributions cannot be separated out (Saavedra, Early, & Van Dyne, 1993).”

“The level of task interdependence constrains the interactions
among team members and the extent to which they need to coordinate their individual responses. Furthermore, it gives the team members an opportunity to inquire and learn about each other’s skills and abilities (Kozlowski et al., 1999)”

“Task interdependence affects the emergence of collective-
efficacy as a group-level construct and also influences the relation- ships between self- and collective-efficacy and team performance (Gully, Incalcaterra, Joshi, & Beaubien, 2002).”

“First, the current study vali- dated task interdependence as a necessary condition for the emergence of collective-efficacy as a group-level construct, distinct from self-efficacy. Second, it identified task interdependence as a structural variable that influenced the efficacy-performance relationship. Specifically, the current study demonstrated that under high task interdependence only collective- and not self-efficacy influenced team performance, whereas under lowtask interdependence only self- and not collective-efficacy affected team members’ performance. Third, it demonstrated the spiral relationships between efficacy perceptions and performance.”

“Interdependence becomes an integral aspect of the multilevel approach because it transforms a collective of individuals into a team that transcends the sum of its individual members (Kozlowski et al., 1999)”

“These findings suggest that as tasks become more interdependent, it is harder for a person to cogni- tively separate his or her own performance from that of the team and to attribute performance to his or her self-efficacy perceptions (Lindsley et al., 1995)”

“Thus, task interdependence determined which type of effi- cacy perceptions becamesalient and influenced team performance.”

**(2006) The Work Design Questionnaire (WDQ): Developing and validating a comprehensive measure for assessing job design and the nature of work. – Morgeson, Frederick P.
Humphrey, Stephen E.**

“Task variety. Task variety refers to the degree to which a job
requires employees to perform a wide range of tasks on the job. As such, it is similar to notions of task enlargement discussed in the literature (Herzberg, 1968; Lawler, 1969). Jobs that involve the performance of a number of different work activities are likely to be more interesting and enjoyable to perform (Sims, Szilagyi, & Keller, 1976).”

“Task identity. Task identity reflects the degree to which a job involves a whole piece of work, the results of which can be easily identified (Sims et al., 1976). Jobs that involve an intact task, such as providing a complete unit of service or putting together an entire product, are invariably more interesting to perform than jobs that involve only small parts of the task (Hackman & Oldham, 1980).”

“Because work that involves com- plex tasks requires the use of numerous high-level skills and is more mentally demanding and challenging, it is likely to have positive motivational outcomes”

“Interdependence. Interdependence reflects the degree to which
the job depends on others and others depend on it to complete the work (Kiggundu, 1981). As such, interdependence reflects the “connectedness” of jobs to each other. Integral to this definition are two distinct forms of interdependence (Kiggundu, 1981): (a) the extent to which work flows from one job to other jobs (initiated interdependence) and (b) the extent to which a job is affected by work from other jobs (received interdependence).”

**(2006) I need you, you need me: a model of initiated task interdependence – Taggar, Simon
Haines III, Victor Y.**

“why some team members have peers depend on them for material, information, and support (referred to as initiated task interdependence) more so than do others, ceteris paribus.”

“Whether team members perceived initiated task interdependence was explained by the degree to which members themselves depend on their peers (received interdependence), team members’ belief in the value of teamwork, and team members’ self-efficacy for teamwork. As predicted, both collectivism and past job performance were associated with self-efficacy for teamwork. The relationship between initiated interdependence and individual effectiveness was moderated by the team’s collectivist orientation, such that team members were considered relatively effective by their peers when they were high in initiated task interdependence and when their team was composed of collectivists; or when they were low in initiated interdependence and when their team was composed of individualists.”

“Team member interdependence is a desired characteristic of high performing teams. It can positively affect the level of cooperation and collaboration within a team, conflict management, member satisfaction, and team performance (Van der Vegt and Van de Vliert, 2002)”

“Johnson and Johnson (1989) concluded the benefits of interdependence included improved learning, achievement, cognitive complexity of thought, and interpersonal relations.”

“Differences in initiated task interdependence may exist between members in the same team, or between members of different teams, that complete identical tasks under similar conditions. Members”

“Task interdependence is a characteristic of the work that is inherent in the task.”

“At the group level of analysis, task interdependence has been found to have a
positive impact on group outcomes, including job satisfaction, team satisfaction, and group performance (e.g. Campion et al., 1996; Mohr, 1971; Van der Vegt et al., 2001). Similarly, at the group level, outcome interdependence has had positive effects on motivation, learning, achievement, cognitive complexity of thought, and interpersonal relations (e.g. Johnson and Johnson, 1989; Wageman, 1995).”

“Van der Vegt et al. (2001) found that team member task interdependence was positively related to both job and team satisfaction only when the degree of goal interdependence in the work team was high. Van der Vegt and Van de Vliert (2002) conclude that the inconsistent findings in individual level studies may be due to the moderating role of variables at the group or organizational level. We build on Van der Vegt and Van de Vliert (2002) by examining the moderating role of a group collectivism composition.”

“Kiggundu (1983, p. 501) defined initiated task interdependence “as the degree to
which work flows from a particular job to one or more other jobs”.

“Initiated task interdependence describes only one half of the relationship. To
describe the other half, Kiggundu (1978, 1981, 1983) defined “received task interdependence”. It is “the extent to which a person in a particular job is affected by the workflow from one or more other jobs””

“The degree of task interdependence may vary from person-to-person (e.g. Brass, 1985; Kiggundu, 1983). Yet, little is know about what influences the degree to which one team member perceives that the activities of peers depend on him or her for material, information, and support.”

“Self-efficacy for teamwork reflects an individual’s perceived capacity to work effectively in a situation requiring cooperation and coordination among individuals.”

“Collectivism reflects an individual’s affective orientation toward working alone or
with others. Individualists differ from collectivists in that they devalue team efforts in achievement-related contexts, value privacy, devalue the importance of teams for personal well-being, and prefer high degrees of personal autonomy and self-sufficiency (Dion and Dion, 1991; Wagner and Moch, 1986).”

“Received task interdependence: Teamwork makes mutual helping, information sharing, and other cooperative behaviors more important to task completion. It also increases members’ expectations of help and information sharing from others (Spilerman, 1971; Thomas, 1957). The motivation to directly affect the activities of peers may be explained by the notion of reciprocity in social exchange and by reciprocity norms (Adams, 1965).”

“An often mentioned drawback of teamwork is the difficulty a member has in
perceiving how his or her effort contributes to team performance, because team performance is also based on the effort of peers”

“Although task interdependence is generally considered a positive outcome, the
interdependent behavior exhibited by a team member may not always be perceived by peers as effective behavior.”

“Work team success depends on the ability of members to manage their interactions effectively (Morgeson et al., 2005)”

**(2007) Cooperative outcome interdependence, task reflexivity, and team effectiveness: a motivated information processing perspective. – De Dreu, Carsten K W**

“Under perceived cooperative, rather than competitive, outcome interdependence, team members have high trust, are more likely to experience psycho- logical safety, handle their conflicts more constructively, and benefit from these conflicts both as individuals and as a team (Stanne, Johnson, & Johnson, 1999; Tjosvold, 1998; Wong, Tjos- vold, & Yu, 2005).”

“teams are interdependent in a num-
ber of ways.”

“Such task interdependence (Wage- man, 1995) needs to be distinguished from outcome interdependence, that is, the extent to which team members’ outcomes depend on their personal or team performance”

“The concept of cooperative outcome interdependence is closely
linked to work on prosocial versus proself motivation in interpersonal negotiation and small-group decision making (e.g, De Dreu, Giebels,&Van de Vliert, 1998; Ten Velden, Beersma,&De Dreu, 2007; Weingart, Bennett, & Brett, 1993).”

“When team members adopt a prosocial motivation and per-
ceive cooperative outcome interdependence, they handle differ- ences of opinion and other types of conflict better, learn more, and perform more effectively”

“Alper, Tjosvold, and Law (2000) concluded that “orga- nizational teams that rely on cooperative approaches to conflict would appear to be good candidates for making use of their autonomy for themselves and the organization””

“perceived cooperative outcome interdependence affects job satisfaction and individual and team performance only when task interdependence is high and team members need each other to complete their tasks (e.g., Fan & Gruenfeld, 1998; Van der Vegt et al., 2001; Wageman & Baker, 1997).”

“Evidence shows that laboratory groups make better decisions and negotiate their conflicts more constructively (a) when members perceive cooperative outcome interdependence and have a prosocial motivation and (b) when members (are motivated to) engage in systematic, deliberate, and thorough processing of information.”

**(2007) The relationships among asymmetry in task dependence, perceived helping behavior, and trust – de Jong, S B
Van der Vegt, G S
Molleman, E**

“Work teams consist of members who are at least moderately dependent on each other because they are required to work to- gether and/or to rely on each other to reach their goals (Hackman, 1987). “

“Task dependence exists when a team member (A) needs information, resources, advice, knowledge, physical assistance, and/or equipment from another team member (B) to complete his or her task successfully (e.g., Cummings, 1978; Van der Vegt et al., 2005)”

“In a similar way, B may be more or less task dependent on A. When A and B are equally task dependent on each other, they are said to be symmetrically or mutually task dependent (cf. Casciaro & Piskor- ski, 2005, pp. 170–171).”

“When A’s task dependence on B is greater or less than B’s task dependence on A, these two individuals are said to be asymmetrically task dependent”

“symmetrical task dependence has generally been conceptualized and measured at either the team or the individual level of analysis.”

“That is, both team-level and individual-level conceptualizations of symmetrical task dependence ignore potentially important variance at the interpersonal or dyadic level of analysis. In extending previous research, we therefore examine the possibility not only that task dependence can be more or less symmetrical but also that this task dependence can differ across the relationships that one team member has with other team members.”

“we view trust as a quality that is specific to a particular relationship with a fellow team member (cf. Holmes & Rempel, 1989)”

“Greater task interdependence may also lead to a more intense liking of other team members simply as a result of the exposure effect (e.g., Bornstein, 1989) and tends to increase feelings of responsibility for one another’s job performance (Kig- gundu, 1983; Pearce & Gregersen, 1991).”

For instance, Rusbult and Van Lange (2003, p. 355) observed that “the concepts of dependence and power are inextricably related, in that to the extent that one person (A)is relatively more dependent, the other (B) is relatively more powerful”

“Our results suggest that powerful team mem- bers do not always fully recognize helpful behavior by their more dependent colleagues and that this can lead to a decrease in interpersonal trust”

**(2009) TEAM TASK INTERDEPENDENCE PERCEPTIONS: TOWARD AN INTEGRATIVE MODEL OF TEAMWORK – Ledoux, Jared**

“Team members who perceived higher levels of task interdependence and workflow performed better at both the individual and team levels of analysis.”

“Organizations use teams when the required work can be completed more effectively when individuals with different backgrounds and areas of expertise are needed, the workload is too large for one individual, and monitoring of others’ work is imperative (Bunderson, 2003; Mathieu, Heffner, Goodwin, Salas, & Cannon-Bowers, 2000)”

“While task interdependence refers to the objective degree to which group members are dependent upon one another to accomplish their work and is often referred to as a job characteristic (Campion, Medsker, & Higgs, 1993), task interdependence perceptions refer to subjective impressions of task interdependence.”

“Janz et al. (1997) define work teams as “an interdependent collection of individuals, each of whom shares responsibility for organizational outcomes” (pp. 877-878).”

“Task interdependence is an objective job characteristic directly related to performance in teams and may serve to increase the motivation of team members to work together as a team (Gladstein, 1984; Guzzo & Shea, 1992; Janz et al., 1997)”

“Task interdependence perceptions refer to a team member’s impressions of the dependency upon
one another, to some degree, within his or her team to accomplish the work and/or carry out the tasks of the team.”

“Thus, members develop perceptions concerning the nature of their dependence upon others to attain their goals.”

“Individual task interdependence perceptions refer to individual self-reported perceptions of the degree to which the tasks and overall job are team-based. Two task interdependence scales were constructed; one is measured at the job-level (job analysis), and one is measured at the task-level (task analysis).”

“Homogeneity of task interdependence perceptions refers to the degree to which team members
share similar perceptions of task interdependence.”

“this study shows that task interdependence and workflow perceptions were positively related to team communication and performance”

**(2012) Beyond Shared Perceptions of Trust and Monitoring in Teams: Implications of Asymmetry and Dissensus – De Jong, Bart A.
Dirks, Kurt T.**

“It is widely assumed that trust will facilitate team performance,
either directly or indirectly (Dirks, 1999).”

“and there is evidence that team members can differ considerably in how much they trust each other (Gillespie, 2005)”

“Trust is defined as the intention to accept vulnerability on the
basis of positive expectations of the intentions or behavior of another (Rousseau, Sitkin, Burt,&Camerer, 1998)”

“Finally, given the multitude of factors that may lead to variation in trust— such as diversity in propensity to trust, differential displays of trustworthy behavior (Yakovleva et al., 2010), subgroup member- ship (Polzer, Crisp, Jarvenpaa,&Kim, 2006), and task dependence asymmetry (De Jong, Van der Vegt, & Molleman, 2007)— variation in trust would seem to be the rule rather than the exception.”

“trust asymmetry, defined as the extent to which two parties differ in the level of trust for one another (Graebner, 2009). The fact that perceptions of trust reside at the individual level allows it to vary across parties within the same dyad.”

“This team-level conceptualization recognizes that, due to factors such as differences in trust-related behavior, subgroup membership, task dependence asymmetry, some dyads may be more symmetric, whereas others may be more asymmetric. For instance, a team where members A and B have high trust in each other as well as in C, but C does not trust either one exemplifies a pattern of relatively high team trust asymmetry. In contrast, a team where A, B, and C all trust each other exemplifies a pattern of low team trust asymmetry.”

“They argued and showed that trust affects performance because individuals are more likely to share resources with coworkers they trust and more likely to receive more resources from coworkers who trust them.”

“Analogous to this distinction, we contend that effective exchange relationships in teams require not only high (mean) levels of trust but also high symmetry (i.e., low asymmetry) in trust among team members.”

“In two field studies, we found that trust asym- metry (i.e., dispersion in trust) moderated the relationship be- tween intrateam trust (i.e., mean levels of trust) and team performance. ”

**(2013) Coordination breakdowns and their impact on development productivity and software failures – Cataldo, Marcelo;
Herbsleb, James D.**

“the work on modular product designs has extensively examined the role of interdependencies among components of a product and has proposed approaches to minimize those dependencies”

“A key assumption in this line of work is that minimizing technical dependencies among product components will result in a modular work structure”

“those theoretical perspectives have important limitations. A modular strategy is vulnerable to unanticipated “cross-cutting” product features as they require coordinated changes to multiple modules [23]. Moreover, modular structures as well as traditional organizational mechanisms for coordination tend not to be suitable for environments with volatile dependencies”

“Galbraith [19] argued that low levels of interdependency could be managed by traditional mechanisms such as rules, plans, and processes. However, as the level of interdependency increases, additional mechanisms such as lateral communication are required [19].” *J. Galbraith, Designing Complex Organizations. Addison-Wesley Publishing Co., 1973.*

“several researches have documented how the use of modular designs to reduce technical dependencies tends to lead development teams to assume an exaggerated degree of independence”

**(2014) Team Microdynamics: Toward an Organizing Approach to Teamwork – Humphrey, Stephen E.
Aime, Federico**

“definition introduced by Kozlowski and Ilgen (2006, p. 79): a team is
(a) two or more individuals who (b) socially interact (face-to-face or, increasingly, virtually) (c) possess one or more common goals; (d) are brought together to perform organizationally relevant tasks; (e) exhibit interdependencies with respect to workflow, goals, and outcomes; (f) have different roles and responsibilities; and (g) are together embedded in an encompassing organizational system, with boundaries and linkages to the broader system context and task environment.”

“the authors argued that the degree of symmetry in task dependence (i.e. there was mutual interdependence between two team members) impacts helping and trust”

“Jehn, Rispens, and
Thatcher (2010) and De Jong and Dirks (2012) examined the asymmetrical perceptions between team members on conflict and trust, respectively. In Jehn et al.’s study, they argued and found that differences in perceptions by team members on the level of conflict within the team affected the operation of the team. More specifically, they found that asymmetry on task conflict inhibited a team’s creativity, as well as team member satisfaction and performance.”

“De Jong and Dirks argued that teams can only capitalize on the benefits of interpersonal trust when there is little asymmetry in perceptions between members. Having even one member perceiving a low level of trust will inhibit
cooperation within the team, in term harming performance.”

**(2016) Perceptions of task interdependence and functional leadership in schools – Kerry Barnett, John McCormick**

“teams, whereby two or more people
interact interdependently to achieve common goals (Kozlowski & Bell, 2003). Teams generally are considered potentially effective because they can bring together diverse skills, expertise, and experience necessary to tackle the exceptional complexities of school environments.”

“One of the contingencies considered by Kozlowski et al., (2009) is task dynamics. These
researchers posited ‘team tasks are not fixed, rather, they cycle episodically in terms of complexity and load they place on team member resources (cognitive, behavioral, and motivational) engaged as the team works to accomplish goals’ (Kozlowski et al., 2009, p. 116).”

“Task interdependence is the degree to which team members must rely on, and interact with each other to accomplish their tasks effectively (Campion, Medsker & Higgs, 1993; Saavedra, Earley & Van Dyne, 1993). Task interdependence may refer to the objective degree to which team members depend on one another to perform tasks effectively, or team members’ subjective impressions of task interdependence (LeDoux, 2009).”

“However, several researchers (e.g., Shea & Guzzo, 1987) have emphasized that groups and teams often exercise discretion in establishing levels of interaction and cooperation necessary for effective task performance, so that the degree of task interdependence may vary, even in apparently identical task environments (Gully, Incalcaterra, Joshi & Beaubien, 2002).”

“Hackman & Wageman (2005) suggested the level of effort team members apply carrying
out task work contributes to team performance. ”

**(2016) Building a theory of job rotation in software engineering from an instrumental case study – Santos, R.E.S.a
Da Silva, F.Q.B.a
De Magalhães, C.V.C.a
Monteiro, C.V.F.b**

“The study of job rotation in software engineering is motivated by the nature of the software development tasks that have more task variety and task identity than traditional jobs.”

“in software engineering job rotation decreases “task identity” and this seems to be due to the nature of software development in which projects are different from each other more than in other types of businesses.”

**(2016) Preliminary Findings about the Nature of Work in Software Engineering : An Exploratory Survey – Silva, Fabio Q B;
França, César;
Magalhães, Cleyton V C;
Santos, Ronnie E S**

“Recent research has argued that the knowledge- intensive nature of the software engineering work also affects the rationale beyond the motivation and satisfaction of the professionals in this field [18]”

“the WDQ could be effective in identifying specific characteristics of the software engineering work, in comparison to other occupations.”

“Our research on job rotation in
of software engineering work and areas for further research. in
software engineering practice has found complex and potentially conflicting results [14]. This indicates that we need to improve our understanding of software engineering work characteristics to advance on designing managerial techniques to the practice [15].”