**Rascunho**

Task Interdependence - vermelho

Team and Interdependence - verde

Performance and Interdependence - azul

Symmetry and Asymmetry – fundo amarelo

Specifics of software engineering – fundo turquesa

Perception Definition – fundo rosa

**Knowledge Sharing or Redudância de conhecimento – fundo verde cheguei**

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

“Task interdependence as the connectedness between jobs such that performance of one depends on the successful performance of the other.”

“Interdependence reflects the degree to which the job depends on others and others depend on it to complete the work. As such, interdependence reflects the “connectedness” of jobs to each other. Integral to this definition are two distinct forms of interdependence: (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).”

“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.“

“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.”

**(1993) Complex Interdependence in Task-Performing Groups - Saavedra, Richard; Earley, P. Christopher; Dyne, Linn Van**

“A group is a collection of individuals who have relations to one another that make them interdependent to some significant degree.”

“Group performance is the sum of individual performances.”

“Under sequential interdependence, one group member must act before another can act. For this type of task interdependence, group members have different roles and perform different parts of the task in a prescribed order. Group performance requires that each step be performed successfully and in the correct order. A well-known example is the assembly line where one member on the line serially dependent on another. Although interaction among members is essential for effective performance, the work sequence flows only in one direction.”

“Under reciprocal interdependence, Person A's output becomes person B's input and vice versa. Thus, reciprocal interdependence can be characterized by temporally lagged, two-way interactions (Van de Ven et al, 1976). Generally, group members have different roles and often are specialists with different expertise; they perform different parts of the task in a flexible order.”

“Under team interdependence, group members jointly diagnose, problem solve, and collaborate to complete a task. Moreover, group members have the freedom to design their own jobs.”

Interdependence influenced group performance strategies, which in turn affected group performance positively.

“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. On the other hand, 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.”

**(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.”

“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”

**(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.”

“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 military 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 success 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 current study demonstrated that under high task interdependence only collective- and not self-efficacy 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.**

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

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

“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.”

“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””

“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).”

“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**

“teams are interdependent in a number of ways.”

“When team members adopt a prosocial motivation and perceive cooperative outcome interdependence, they handle differences of opinion and other types of conflict better, learn more, and perform more effectively”

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

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

“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”

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”

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

“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.”

“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.”

“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.**

“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.”

“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.”

**(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**

“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”

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

“Teams generally are considered potentially effective because they can bring together diverse skills, expertise, and experience necessary”

“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).”

**(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]” *Wallgren, L. G.; Hanse, J. J. 2007. Job characteristics, motivators and stress among information technology consultants: A structural equation modeling approach. International Journal of Industrial Ergonomics, p. 51-59.*

“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].”