When Motivation Undermines Learning: A Dual-Theory Perspective on Curiosity

Prashant Mishra, Santosh Rangnekar

Abstract

This study integrates Self Determination Theory and Social Cognitive Theory to examine how social skills impact curiosity through sense of learning and the role of self-motivation as a moderator in the process. Such a study helps develop an understanding of individual and environmental factors that contribute to a person's curiosity at work. Following a cross-sectional research design, data have been collected from 274 full-time employees, pan-India, using validated scales. Confirmatory factor analysis was done using AMOS; moderation and moderated mediation analysis were done using Hayes' PROCESS macro. Evidence of social skills positively influencing curiosity came out, while the role of sense of learning was that of a partial mediator. The unexpected negative moderation of self-motivation indicated that people with high self-motivation rely less on social interaction to motivate themselves to learn. Such findings support the overjustification effect and SDT's undermining effect, which explain how external factors, such as social interaction, lower autonomous motivation. These findings are novel and go against the conventional wisdom that while social skills lead to enhanced curiosity through learning, high self-motivation may actually reduce the dependency on the social learning processes.

Keywords: workplace curiosity, self-motivation, social cognitive theory, self-determination theory, sense of learning, moderated-mediation, undermining effect

JEL Classification: J24, M12, M53, D83

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DOI: 10.32725/acta.2025.012

1. Introduction

Curiosity helps employees and leaders through the uncertainty of the company in terms of demands and pressures from the market. It fuels creative problem-solving and innovation since individuals reflect on decisions (Gino, 2018). In addition to knowledge exploration, curiosity promotes workplace relationships. Managers who acknowledge their cognitive limits are noted as more approachable. They tend to develop workplace relationships, increased self-awareness, and lowered conflicts (Shigeoka, 2023).

Defined as the tendency to explore the professional environment, curiosity has gained importance in Indian workplaces (Porfeli & Savickas, 2012; Savickas, 2005). This has been supported in findings from a global survey of 2,000 managers, which included Indian professionals, where 85% consider curiosity to be an important attribute among employees, with 67% of them consider its rising importance (SAS Institute Inc., 2021). India's work culture epitomizes curiosity through Jugaad-frugal innovation-leading the world into resourceful problem-solving, followed by China and the US.

Curiosity has long been regarded as a central human drive underlying exploration and learning. Early psychological theories positioned curiosity as a motivational mechanism arising from cognitive conflict or uncertainty (Berlyne, 1954, 1960, 1966). Later, Loewenstein's (1994) information-gap theory crystallized this perspective when he proposed that curiosity arises once individuals notice a gap between what they currently know and what they want to know, which in turn serves to motivate engagement in exploratory behavior with the aim of bridging that gap. These ideas were further worked upon by Litman (2008), Litman & Jimerson (2004) to differentiate between interest-type curiosity accompanied by internal pleasure in learning, and deprivation-type curiosity which is associated with one's tendency to get rid of uncertainty or tension. These seminal works have positioned curiosity in an integrated affective and cognitive ecology. They have thus provided the theoretical foundation for more recent workplace curiosity research, where exploration, uncertainty and learning interact within social contexts.

Evidence underlines the role of curiosity for job satisfaction, job crafting, engagement, and innovation, and job performance (Hardy et al., 2017; Kashdan et al., 2009; Mussel & Spengler, 2015; Reio Jr. & Callahan, 2004). In an educational environment, socially skilled learners are found to be more engaged in clarification-seeking and collaborative learning, according to Gamboa et al. (2023). Social skills, as a component of of social intelligence, help one adapt to new environments easily (Zulkifli et al., 2021). Employees demonstrating better social skills manifest higher absorption and vigour and higher dedication, (Sanwal & Sareen, 2023), increasing team innovation, knowledge sharing, and interpersonal barrier reduction, (Liao et al., 2022). Organizational socialization further increases team innovation through knowledge sharing, while, learner engagement functions as a mediating construct in the shared relationship between active learning and curiosity (Liu et al., 2024).

A continuous sense of learning is a critical behavioral dimension of work passion (Johri et al., 2016), that enhances learning experience and academic outcomes while fostering motivation (Singh & Manjaly, 2022). In addition, curiosity, social skils and a keen sense of learning contribute to teamwork, flexibility, and professional development within organizations. Self-motivation is the internal drive to perform, which is linked to enhanced productivity and goal accomplishment (Johri et al., 2016; Lee, 2024; Ryan & Deci, 2000; Stupnisky et al., 2019).

Despite their recognized importance, each of these constructs have often been explored in a rather isolated fashion. The current study develops an integrative moderated mediation model aimed at investigating their complex interrelations by estimating direct effects and boundary conditions under which such relations may occur. This study will extend the understanding of workplace curiosity by investigating how social and personal factors interact in shaping learning-driven curiosity. It will examine whether social skills directly affect curiosity, whether such influence is mediated by a sense of learning, and whether self-motivation moderates the effect of social skills on the sense of learning and, hence, the indirect effect on curiosity. In testing this moderated mediation model, the current research combines Self-Determination Theory (SDT) (Deci & Ryan, 1985) and Social Cognitive Theory (SCT)(Bandura, 1986) into an integrated account of how intrinsic motivation and social learning interact to facilitate or limit curiosity in work contexts.

1.1 Theoretical background

To understand the nuanced relationship between social skills, a sense of learning, curiosity, and self-motivation, we adopt a double-barrelled theoretical basis.

Albert Bandura's (1986) SCT emphasizes that human behavior is learned through the concept of reciprocal determinism, which is a dynamic interaction between factors interplaying between environment, behavior, and personal disposition. SCT postulates that the acquisition of knowledge and development of behavior in individuals are facilitated by observing, social interactions and reinforcement mechanisms. In the context of this study, social skills are considered an important environmental factor in promoting learning, furthering curiosity; this has been supported by the SCT, which states that learning is not an individual activity but rather it roots in the social context.

While SCT explains the social learning process, SDT (Deci & Ryan, 1985) elaborates on individual differences driving learning pursuits. It postulates a continuum for human motivation operating from the range of extrinsic to intrinsic motivation anchored in the fulfillment of three core psychological needs: relatedness, autonomy, and competence. For our research, self-motivation is proposed as a moderator influencing how effectively social skills translate into a sense of learning. A high self-motivation will more likely drive an individual to capitalize on social interactions, leading to increased learning experiences and, therefore, curiosity. This falls in line with the proposition of Ryan & Deci, where intrinsically motivated individuals derive more satisfaction from the learning process that drives them to explore ideas and chase curiosity.

Our study makes three important contributions to theory and practice. First, it presents a unified explanatory model that combines Self-Determination Theory and Social Cognitive Theory, integrating the motivational and social-cognitive perspectives that are usually analyzed separately. Second, it provides empirical evidence showing that self-motivation, normally viewed as universally desirable, may actually have two sides. Third, by investigating Indian employees, our study places workplace curiosity in a collectivist resource-constrained environment and offers cross-cultural evidence that extends existing models dominated by Western samples. These contributions collectively clarify how social and personal factors jointly influence learning-driven curiosity and point to new routes for research on motivation and adaptive behavior at work.

1.2 Literature Review

1.2.1 Social Skills and Curiosity

The SCT (Bandura, 1986) focuses on the interaction of personal factors, behaviour and environmental influences through reciprocal determinism. In this model, social skills like communication, empathy, and cooperation are of prime importance to learning experiences and development of curiosity. Reio & Wiswell, (2000) mentioned that interpersonal skills and social interactions are fundamental for work-based learning and curiosity helps in motivating the process; they indicated that highly socially competent employees commonly exhibit exploratory behaviour, thus amplifying their own and other peers' levels of curiosity.

Employees who have a curious disposition have been found more responsive to new challenges inherent in today's work ecology and mostly turned out to perform better (Kashdan et al., 2009). Besides, curiosity has been said to promote divergent thinking for problem-solving and creativity that is germane to effective collaboration and communication (Horstmeyer, 2020). In other words, an organizational culture placing importance on curiosity would facilitate not only teamwork and team performance but also socialization and engagement.

Curiosity directed toward interpersonal relationships, the dimension of social curiosity, also helps reduce social anxiety and therefore increases interpersonal relationships. Individuals with high social curiosity are adept at handling complex social situations, which helps in maintaining better relations at work and a better team atmosphere. Social curiosity, in a diversified organizational setup, encourages the pursuit of diversified viewpoints, which helps foster an inclusive and collaborative atmosphere, hence improving overall performance. Individuals with strong social skills are reported to have higher likelihood of engaging in curiosity-driven behaviours such as critical inquiry and perspective-taking, which in turn enhances their knowledge acquisition and cognitive curiosity (Baker et al., 2020; Gollwitzer & Bargh, 2018). Additionally, social skills also promote career advancement by aiding stronger interpersonal networks as curiosity aids in engagement of new experiences and learnings (Gamboa et al., 2023; Harrison et al., 2011). Workplaces that promote curiosity thorough their initiatives and training tend to enhance the employees' cognitive and social skills and inculcate a culture of innovation and adaptability (AlShamsi et al., 2025). Conversely, Liu et al. (2024) reported that despite active learning pedagogy being linked to learner engagement positively, does not significantly relate to learner curiosity.

Way & Taffe (2024) stress that though there are ample studies exploring the nexus of curiosity on intelligence, the evidence is scarce in the interpersonal domain. Additionally, a lack of academic work studying the effect of social skills on curiosity despite peripheral literature suggesting a possibility of an underlying relationship, drives us to propose our first hypothesis.

H1. Social skills positively influence curiosity

1.2.2 Mediating role of sense of learning

Research indicates that workplace that cultivates a learning climate can sustain competitive advantage by knowledge integration and adaptation (Dewi & Pradhanawati, 2021). Cerasoli et al. (2018) found myriads of antecedents to informal learning behaviour which may facilitate or hinder the process; these could be distinguished in dispositional and situational factors, with the former encompassing attributes like personality and the motivation to learn, and the latter including elements such as support, learning opportunities, workplace autonomy, and interaction within the work environment. Park et al. (2020) establishes that learning related to socialization serves as a

mediator in the relationship of curiosity and job performance, suggesting that personnel with higher social skills are show higher likelihood to engage in learning, hence enhancing their curiosity and ultimately job performance. Han et al. (2022) noted the role of informal learning in job performance, emphasizing that workplace social interactions can drastically influence the value that employees associate with learning supporting the previous finding.

Besides, people's sense of learning is closely related to their curiosity. A positive learning environment is in turn related to job performance, entrenching the notion that supportive surroundings enhance the workers' sense of learning and hence their curiosity (Cortini et al., 2016). Previous studies have also reported mediation models similar to the sense of learning in fostering curiosity. For example, Liu et al. (2024) reported that learner engagement was a crucial mediator between learning pedagogy and learner curiosity which suggests that creating an engaging learning environment could enhance the sense of learning consequently fostering curiosity.

From a theoretical perspective, SCT by Bandura, (1986) explains that learning occurs in social context and is facilitated by personal factors, behavioural patterns and environmental influences. Social skills in this context facilitate effective environmental engagement leading to positive social interactions and, in turn reinforcing the sense of learning that promotes exploratory behaviour and curiosity. Using the SCT, Chen & Tu (2021) established that embedding digital games into the learning process can enhance the intrinsic motivation and engagement of students and, thus improve the learning outcomes. Observational learning, an important aspect of SCT has been studied by (Groenendijk et al., 2013) and results indicate that students are able to enhance their creative performance by observing and emulating strategies employed by peers, thereby reinforcing the sense of learning and curiosity. It is with these established facts and theoretical support that we hypothesize the following:

H2. Sense of learning mediates the positive influence of social skills on curiosity.

1.2.3 Moderating role of self-motivation

Increased levels of self-motivation are linked to higher job performance, as suggested by studies that report greater productivity and commitment from motivated employees (Noermijati & Primasari, 2015; Selasse, 2022; Wijayanto & Riani, 2021; Zaleska & de Menezes, 2007). Social skills are closely related to self-motivation and importantly enrich the dynamics of the work environment, thereby giving employees an edge over others in terms of the ability to handle interpersonal environments. For example, emotional intelligence-a part of social skills-regularly demonstrates a positive impact on performance outcomes and self-motivation. This suggests that employees who manage their and others emotions effectively are more likely to be self-motivated (Selasse, 2022).

Further, sense of learning is another important factor in the workplace, which again intersects with self-motivation. Intrinsic motivation has been shown to be linked with learning, personal development and impacting employee performance (Agbaku et al., 2020; Triswanto & Yunita, 2022). The perception of employees that their work aids in learning and development, signals them to put in effort and show increased engagement (Hartini et al., 2023; Siregar, 2021). This intrinsic motivation holds importance, not only for enhancing performance but also in developing a culture of continuous improvement at the workplace (C. Chen et al., 2019).

Additionally, from an SDT lens, intrinsic motivation is contingent upon three core needs relatedness, competence and autonomy. The relatedness component, enhanced by social skills, fosters supportive relationship aiding motivation and engagement (Baumeister & Leary, 1995).

Along the same lines, a sense of learning is linked to competence, wherein the perception of mastery can enhance intrinsic motivation (Deci & Ryan, 1985).

The strength of sense of learning and social skills, however, might be contingent upon self-motivation, which reflects autonomy or the degree to which individuals regulate their own behaviour (Ryan & Deci, 2009). It has been shown that autonomy-supportive environments enhance learning persistence and motivation and also enhances the displayed curiosity (Vansteenkiste et al., 2004)

In the past, the relationship between instructor autonomy support and predicted course performance have been found to be moderated by autonomous self-regulation (Black & Deci, 2000). It is thus logically sound to pose that highly self-motivated individuals are likely to utilize social interactions more effectively, leveraging the interactions and relationships to enhance learning, whereas ones with low self-motivation may be less capable of translating these interactions into meaningful learning experience.

From an SDT–SCT perspective, self-motivation is a form of autonomous self-regulation that interacts with socially derived learning processes. From the perspective of SDT, the perceived fulfillment of autonomy, competence, and relatedness needs determines the quality of motivation (Deci & Ryan, 1985). Social skills meet the need for relatedness because they relate to constructive interactions, while perceived learning satisfies competence through mastery experiences. SCT adds that reciprocal determinism, involving personal factors such as motivation, interacts with social and behavioral influences (Bandura, 1986). Consequently, highly self-motivated individuals can apply themselves better to learning in social contexts and transform the dynamics of interpersonal exchange into stronger perceptions of learning. Self-motivation therefore should enhance the positive impact of social skills on sense of learning. Drawing from the above line of reasoning, we expect the indirect effect of social skills on curiosity via sense of learning also to be contingent on the level of self-motivation, as highly self-motivated employees can translate social learning experiences more effectively into exploration driven by curiosity. Therefore, self-motivation acts as the boundary condition across social skills, learning, and curiosity. Hence, we hypothesize that:

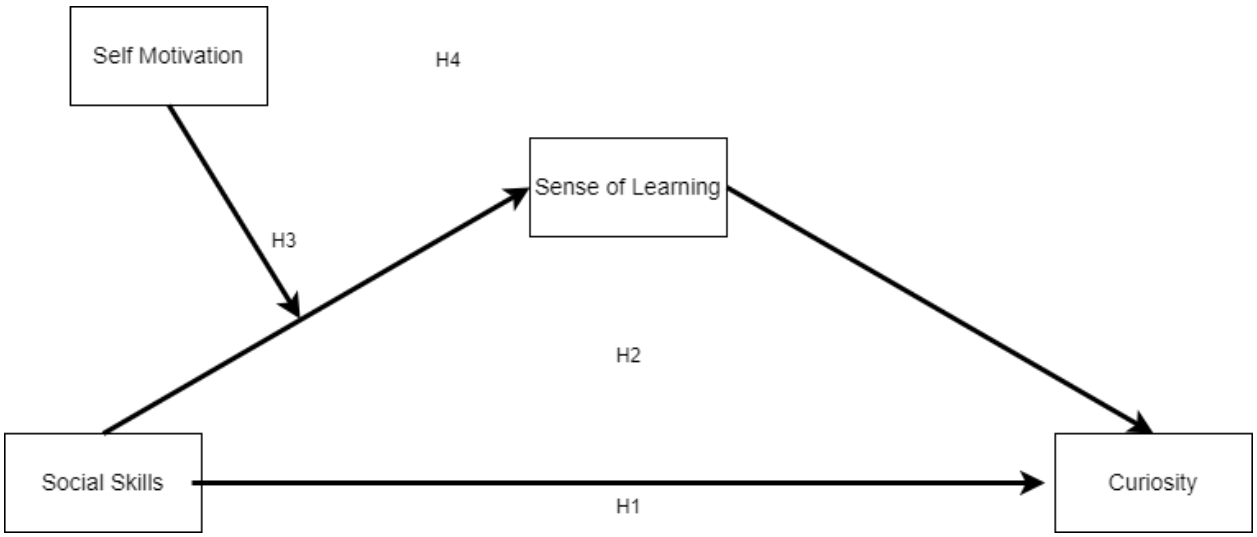
H3. Self-motivation moderates the relationship between social skills and sense of learning in a manner that the relationship between them would be stronger and positive when with high self-motivation.

H4. Self-motivation moderates the mediation between social skills and curiosity through sense of learning, in a manner that the indirect relationship between them would be stronger and positive with high self-motivation.

Existing research lacks an integrative model linking social skills, sense of learning, and curiosity. While studies highlight their individual roles, few examine their combined effects. Additionally, self-motivation's moderating role remains underexplored, despite its influence on learning and performance. The lack of moderated mediation models limits our understanding of how self-motivation shapes learning-driven curiosity. This study will help address such gaps by proposing a holistic framework on the interplay of social skills, learning, and curiosity under varying levels of self-motivation. This model advances understanding of learning and curiosity development using the analytical structure shown in Figure 1.

Fig. 1

Conceptual framework



2. Method

2.1 Sample and data collection

Raw data for the research was sourced through individuals employed full-time across varied private and public sector organisations in the service and manufacturing sectors in India. A descriptive empirical strategy of cross sectional nature was adopted, wherein a structured, self-administered survey instrument was used for collecting responses, accompanied by an explanatory cover letter outlining the study objectives. Respondents fulfilling the eligibility criteria of at least one year of work experience were selected. The survey form was made on Google Forms and was circulated using digital platforms including but not limited LinkedIn and e-mails. Out of the 650 circulated Google Forms using convenience sampling, 279 were responded to. The final sample stood at 274, after removal of responses with zero standard deviations, yielding a rate of return of 42.15%. To avoid participants from having assumptions about the study, the conceptual model was not disclosed to them. Additionally, the cover letter assured the respondents of anonymity and sought their honest response.

The respondents (N=274) came from varying age groups; 65.7% fell in 21-35 years age group, 26.3% and 8% were from 35-50 years and 51-65 years age group respectively; additionally, females accounted for 31.8% of the sample. Educationally, 8.8% were diploma holders, 36.9% were graduates, 46.4% were postgraduates and the last 8% were PhD holders. These respondents came from private (66.4%) and public sector (33.6%) organizations and were employed at junior (34.7%), middle (54.7%) and senior level (10.6%) job positions in diverse sectors such as power, irrigation, e-commerce etc.

2.2 Measures

2.2.1 Social Skills:

The measurement of the independent variable of the model, social skills (α=0.809), done by a seven-item subscale from Tromso Social Intelligence Scale (TSIS) (Silvera et al., 2001). Participants indicated their level of agreement using a seven-point Likert scale, ranging from 1 (Very Strongly Disagree) to 7 (Very Strongly Agree), with 4 representing a neutral response. An indicative item of this scale is, "I can predict other peoples' behaviour." Items exhibiting insufficient factor loadings were excluded from the analyses.

2.2.2 Sense of Learning:

Sense of Learning (α=0.946) was captured employing a four-item subscale of Work Passion, prepared by Johri et al., (2016) on seven-point Likert scale ranging from 1 (Very Strongly Disagree) to 7 (Very Strongly Agree), with 4 representing the neutral midpoint. One item with low factor loading was dropped. A sample item of the scale is, "I always attempt to find new and better ways of doing my work."

2.2.3 Curiosity:

Curiosity (α=0.860) was captured by employing a three-item subscale of Career Adapt-Abilities Scale-Short Form (CAAS) (Maggiori et al., 2017). The respondents rated a seven-point Likert scale in accordance with the instructions, "Please rate how strongly you have developed each of the following abilities using the scale", where 1= Not at all strong, 7=Extremely strong and 4=Moderately strong. An indicative item is, "Observing different ways of doing things."

2.2.4 Self-motivation:

The responses for self-motivation (α=0.768) were captured using a four-item subscale of Work Passion developed by Johri et al., (2016). The seven-point Likert scale was used where 1 represented "Very Strongly Disagree", 7 represented "Very Strongly Agree" and 4 represented "Neutral". An indicative item of this scale is, "I get my motivation from the work itself and not from the rewards for it." One item was dropped as it loaded poorly on the factor.

2.3 Analytic Approach

We analysed the collected data using IBM SPSS and IBM AMOS. Confirmatory Factor Analysis (CFA) was conducted using AMOS to assess the validity and adequacy of the measurement model. The structural model for mediation was analysed in AMOS and the moderation analysis, and mediated moderation analysis was performed using SPSS using Hayes PROCESS macro with Model 1 and Model 7 respectively.

3. Results

3.1 Measurement Model

Using the variables under study CFA for the purpose of validating the measurement model was carried out. The model yielded a strong fit (χ^2=65.395, p=0.264, df=59, χ^2/df=1.108, TLI=0.996, NFI=0.969, CFI=0.997, RMSEA=0.020). The factor loadings of the items to the constructs fell in the range of 0.629 and 0.943. For social skills the values lay between 0.629 and 0.832 and for self-motivation they ranged between 0.687 and 0.788; similarly for sense of learning and curiosity the factor loadings were in the range of 0.914 to 0.943 and 0.705 to 0.915 respectively.

The measurement model's construct validity was examined using multiple indicators, including Composite Reliability (CR), Average Variance Extracted (AVE), and HTMT ratios. The CR values spanning within 0.766 and 0.946 confirmed the reliability by exceeding the 0.70 threshold. We found the square root of AVE for self-motivation to be less than its correlation with sense of learning (Fornell & Larcker, 1981). However, the reliability can be established with CR alone as AVE is often too strict (Malhotra & Dash, 2011). Additionally, an HTMT analysis was employed to further assess the discriminant validity. The obtained HTMT values were in the range of 0.215-0.776, providing a strong evidence for the constructs' discriminant validity and reliability (Henseler et al., 2015).

3.2 Results of hypothesis testing

Covariance-based Structural Equation Modelling was employed to test the mediation model among the latent constructs. The structural model showed an excellent fit (χ^2=40.400, p=0.146, df=32, χ^2/df=1.262, TLI=0.993, NFI=0.976, CFI=0.995, RMSEA=0.031).

The total effect of social skills on curiosity was positive and significant *(B=0.295, β=0.277, p<0.05).* Furthermore, adding a sense of learning as a mediator between social skills and curiosity became less *(B= 0.031, β= 0.031, p< 0.05)*, indicating partial mediation and providing empirical support for H2. Additionally, bootstrapping with 10,000 resamples and a 95% confidence interval [0.031,0.248] provided evidence for mediation (Preacher & Hayes, 2008).

Our moderation hypotheses was tested using the Hayes PROCESS Macro Model 1. The analysis results (refer Table 3 and Figure 3) showed that self-motivation moderated the impact of social skills on sense of learning with the interaction showing a significant effect in prediction of self-motivation (coefficient=-0.1016, p=0.0001). The analysis found partial support for H3. Furthermore, a bootstrap analysis was conducted using 5,000 random resamples, with a 95% confidence interval to estimate the precision of the indirect effects (coefficient= -0.1016, LLCI= -0.1516, ULCI= -0.0495, Boot SE= 0.0259).

The moderated-mediation hypothesis was tested employing PROCESS Macro (Model 7) for SPSS (Hayes, 2018) (refer Table 4 & 5). The interaction term between social skills and self-motivation was found to be significant (*b= -0.1016, SE= 0.0252, t= -4.03, p< 0.001*), indicating that self-motivation moderated the relationship between social skills and sense of learning. The analysis of conditional effects revealed that on the low levels of self-motivation, the effect of social skills on sense of learning was not significant (*b=0.0597, p=0.286*), but became negative and significant at moderate (*b= -0.1013, p= 0.011*) and elevated level of self-motivation (*b=-0.2167, p<0.001*). The stability of this influence was confirmed using 5,000 random bootstrap resamples, with a significant moderated mediation effect (95% CI: [-0.1512, -0.0505]) suggesting that the mediation effect of sense of learning on the indirect effect of social skills on curiosity was contingent upon levels of self-motivation, partially supporting H4.

Table 1

Reliabilities, Correlations, Means and Standard Deviations.

	α	CR	M	SD	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Sex	-	-	1.32	0.47	-	-	-	-	-	-	-	-	-
2. Education	-	-	2.54	0.77	0.362**	-	-	-	-	-	-	-	-
3. Job Position	-	-	2.24	0.63	0.263**	0.073	-	-	-	-	-	-	-
4. Experience	-	-	1.97	0.94	-0.423**	-0.361**	-0.448**	-	-	-	-	-	-
5. Annual Income	-	-	2.88	1.16	-0.444**	-0.319**	-0.512**	0.587**	-	-	-	-	-
6. Social skills	0.809	0.816	3.87	1.24	-0.054	-0.026	0.169**	0.034	-0.072	*0.529*	-	-	-
7. Self-motivation	0.768	0.766	4.62	1.46	-0.079	-0.084	-0.221**	0.259**	0.140*	0.279***	*0.522*	-	-
8. Sense of learning	0.946	0.946	5.56	1.40	-0.005	-0.009	-0.128*	0.140*	0.038	0.196**	0.788***	*0.854*	-
9. Curiosity	0.860	0.865	5.49	1.22	0.018	0.035	0.005	-0.025	-0.018	0.276***	0.437***	0.609***	*0.684*

*Note. *p < 0.05; **p < 0.01;***p<0.001* (2-tailed). Values in italics diagonally = Average variance extracted; values below the diagonal = Inter-factor correlations; SD = Standard deviation; CR = Composite reliability; N = 274.

Table 2

Mediational Relationship

		Bootstrap 95% CI			Bootstrap 95% CI			Bootstrap 95% CI	
Path	Total effect	LLCI	ULCI	Direct effect	LLCI	ULCI	Indirect effect	LLCI	ULCI
Social skills --> Curiosity	0.295*	0.132	0.467	0.175*	0.053	0.311	0.120*	0.031	0.248

Note. *$p < 0.05$; Mediating variable = Sense of learning

Fig. 2

Structural model with standardised path coefficients

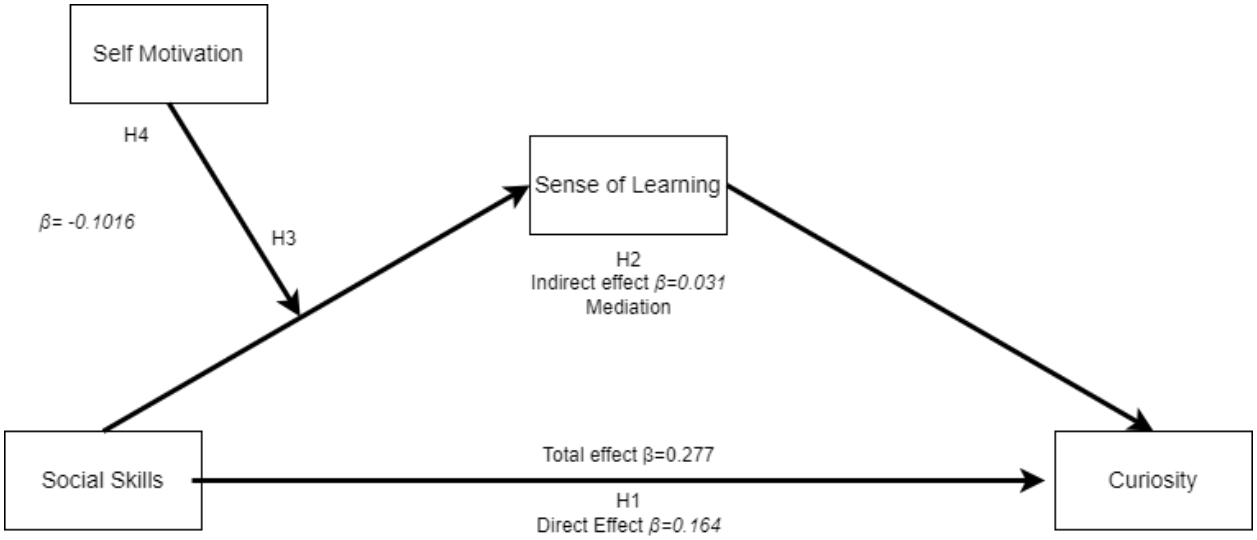


Table 3

Self-motivation as moderator.

Moderator	Coefficient	Boot SE	Bootstrap LLCI	Bootstrap ULCI
Social skills	-0.0899	0.0438	-0.1778	-0.0060
Self-motivation	0.8902	0.0366	0.8152	0.9584
Interaction	-0.1016	0.0259	-0.1516	-0.0495

Note. Bootstrap = 5,000 resamples; 95% CI; Interaction=social skills X self-motivation

Fig. 3

Self-motivation moderation on Sense of Learning

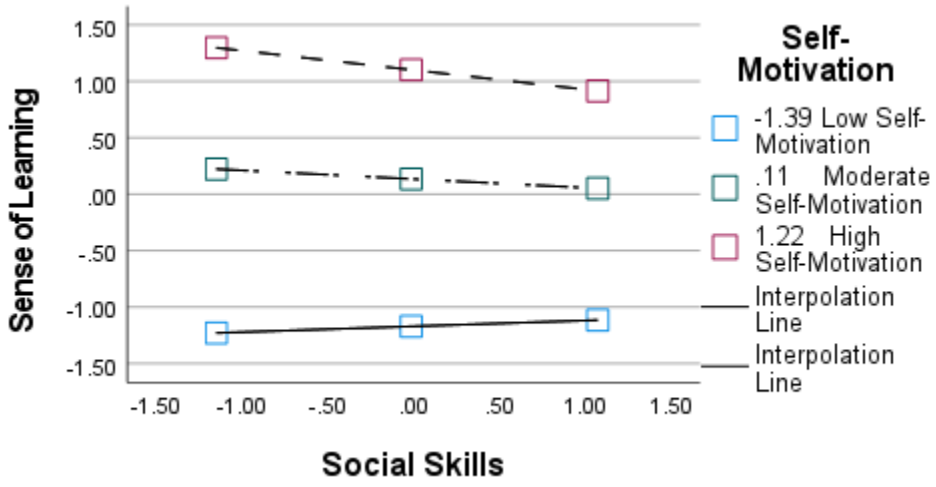


Table 4

Moderated-mediation effect index.

	Curiosity (DV)		Bootstrap 95% CI	
Analysis	Index	Boot Standard Error	LLCI	ULCI
Moderated mediation	-0.0589	0.0188	-0.0989	-0.0251

Note. Standardised coefficients; Bootstrap= 5,000 resamples, confidence interval at 95% ; DV= Dependent variable=curiosity; Independent variable= social skills; Mediator= sense of learning; Moderator variable=self-motivation.

Table 5

Moderated-mediation results across varying self-motivation level.

Moderator (Self-motivation)	Conditional indirect effect	Bootstrap Standard Error	Bootstrap LLCI	Bootstrap ULCI
Low (-1.4731)	0.0346	0.0431	-0.0457	0.1233
Moderate (0.1130)	-0.0588	0.0248	-0.1089	-0.0112
High (1.2489)	-0.1256	0.0287	-0.1868	-0.0751

Note. Bootstrap=5,000 resamples; 95% CI; Dependent variable=curiosity

4. Discussion

The present study extends curiosity literature by showing when and why social skills translate into curiosity through learning. By combining SDT and SCT, it demonstrates that curiosity is not only a product of social learning but also conditional upon internal motivational orientations. The unexpected negative moderation by self-motivation underlines the idea that autonomous drives can substitute for, rather than amplify, socially rooted learning. This refines our understanding of SDT's undermining effect and repositions self-motivation as a boundary condition rather than a universal catalyst of curiosity.

Social skills, learning, and curiosity

Curiosity was positively affected by social skills. Individuals with high interpersonal competence are more likely to explore, leading to higher levels of curiosity. This supports previous research that socialization and interpersonal skills are crucial for workplace learning and curiosity (Reio & Wiswell, 2000). Sense of learning partially mediated the effects of the social skills on curiosity, validating that social process aids in developing perceptions of learning that promote curiosity. Findings provide further support for Bandura's (1986) SCT, where social interaction and observational learning have been found to be critical in adaptive behavior development.

Explaining negative moderation of self-motivation

Contrary to expectations, self-motivation negatively moderated the effects that social skills have on the sense of learning and, in turn, on curiosity. This suggests that highly self-motivated employees may center mainly on internal drives and personal goals, reducing their reliance on social interactions as sources of learning. Individuals of this kind could see collaborative exchanges as less vital for themselves and, consequently, weaken the linkage between social skills and perceived learning.

Similar findings have emerged in studies on self-efficacy, where overconfidence can lead to lower effort and poorer performance (Vancouver et al., 2002). Consistent with this, highly self-motivated learners may avoid group learning and instead prefer to work alone because they view collaboration as a constraint, a dynamic similar to social-loafing effects. These tendencies can account for why social engagement yields marginal benefits for people who are already highly autonomously motivated.

The Overjustification and Undermining Effects: Theoretical Integration

We can understand the unexpected negative moderation through two interrelated motivational mechanisms. First, the overjustification effect (Lepper et al., 1973) suggests that introducing external or social rewards for an intrinsically motivated activity can rewire that activity as externally driven which in turn weakens the intrinsic motivation. Research evidence for this mechanism has been obtained across multiple contexts including educational, organizational, and consumer contexts (Akin-Little & Little, 2004; Dholakia, 2006; Hewett & Conway, 2016; Kivetz, 2005). Building on this we have SDT's undermining effect (Deci, 1971; Deci & Ryan, 1985; Ryan et al., 1983) which holds that insofar as external influences are perceived as controlling, they tend to thwart the need for autonomy and reduce self-determined motivation. Withing our present context, social interactions is usually viewed as autonomy-supportive but it may be experienced by highly self-motivated individuals as controlling signal consequently making them to devalue interpersonal learning. This dual-mechanism explanation clears up why self-motivation is able to weaken the social pathway to curiosity. The findings extend SDT by showing that even social inputs

can elicit the undermining effect, and they enrich SCT by demonstrating that motivation functions as a boundary condition determining when social learning fosters, or constrains, curiosity.

4.1. Theoretical Implications

We integrate SDT and SCT in the presented study and extend theoretical findings into workplace curiosity within our explanatory framework. While SCT (Bandura, 1986), focuses on the social origins of learning through reciprocal determinism, SDT, (Deci and Ryan, 1985), provides a clear elaboration of individual motivational forces which can help sustain learning. This study integrates these notions to explain how overt social inputs and covert motivational states merge in order to make up employees' sense of learning and curiosity. Our framework helps account for the nature of curiosity more comprehensively, both as a socially facilitated and self-regulated phenomenon.

Contradicting the conventional assumption that self-motivation universally enhances learning and adaptive outcomes, our findings indicate its dualistic role. Particularly, higher self-motivation weakened the positive association between social skills and a sense of learning and, ultimately, between social skills and curiosity. This result goes against the long-held notion that intrinsic motivation is an unequivocal strength (Ryan & Deci, 2000; Stupnisky et al., 2019). Instead, it fits with SDT's "undermining effect," in which external events perceived as controlling undermine autonomous motivation (Deci & Ryan, 1985; Ryan et al., 1983). Elaborating on that logic, the current study insinuates that social interactions-those generally considered autonomy-supportive-might, under certain conditions, be threatening for highly self-motivated persons and thus reduce their sense of learning. It expands the boundary condition of SDT by showing that socially mediated contingencies, rather than only tangible rewards, can elicit the undermining effect.

From the perspective of SCT, these results further develop an understanding of reciprocal determinism-the personal constituent (motivation), the behavioral constituent (learning), and the environmental constituent (social skills) interrelate contingently rather than additively. Individuals with strong autonomous drives rely less on social reinforcement and more on self-regulation. Thus, the study extends prior evidence based on SCT (Schunk & DiBenedetto, 2020) by pointing to self-motivation as a boundary condition affecting the efficiency of social learning. Beyond integrating SDT and SCT, this study has contributed to curiosity research by providing empirical validation of a moderated mediation model explaining how social and personal factors collectively foster learning-driven curiosity that has so far remained understudied. In showing that self-motivation can dampen the benefits of social skills, the present study reconceptualizes curiosity as a dynamic outcome that is born from tension between autonomy and relatedness.

4.2 Practical Implications

These findings show that workplace learning environments should be oriented according to the employees' motivational orientations. While employees who possess high self-motivation may appreciate options for autonomous learning, such as self-directed projects, digital modules, or flexible working hours, employees who have low self-motivation generally prefer socially interactive formats, including peer learning or even a more structured form of mentorship.

In fact, the real challenge is applying these insights to practice in a manner consonant with organizational realities. The segmenting of employees by motivational profile and provision of differentiated learning experiences can be resource-intensive and face certain practical obstacles, such as limited budgets, shortage of time, managerial capacity, or resistance to new HR practices. The implementation process might therefore be more effectively done on a gradual, pilot-based basis, starting with small-scale programs or voluntary participation rather than large-scale redesign.

For instance, managers can start by informally gauging motivational tendencies in performance reviews or training evaluations. This information can then be used to make team assignments and adjust feedback styles accordingly. Gradually over time, workplace can institutionalize this kind of categorization through offering optional tracks in training or blended learning modules. Acknowledging these limitations also underlines the practical value addition of this study by situating its recommendations within resource constraints typical of most Indian workplaces.

4.3 Limitations and future directions

While contributing with new insights, this study has the limitations related to a cross-sectional design that constrains its causal claims. Further research with longitudinal or experimental designs is called for to validate the present study's findings. Further, reliance exclusively on self-administered questionnaires requires future research to collect data from multiple sources. The limited sample of Indian employees may impinge upon the generalizability of findings across cultures. Future research may investigate industry-wise variations and cross-cultural differences. Furthermore, negative moderation of self-motivation invites further investigation in a quest for underlying psychological mechanisms. The use of other moderators, such as learning orientation or metacognition, can provide an in-depth look at the formation of curiosity at work under diverse motivational conditions.

References

Agbaku, C. A., Osei, V., & Chengqi, S. (2020). The Effect of Motivation on Employee Performance: A Case of Barclays Bank Ghana Limited. *The International Journal of Business & Management*, 8(4). https://doi.org/10.24940/theijbm/2020/v8/i4/BM2004-041

Akin-Little, K. A., & Little, S. G. (2004). Re-Examining the Overjustification Effect. *Journal of Behavioral Education*, *13*(3), 179–192. https://doi.org/10.1023/B:JOBE.0000037628.81867.69

AlShamsi, S. S., Bin Ahmad, K. Z., & Jasimuddin, S. M. (2025). Curiosity, proactive personality, organizational culture and work engagement in the aviation industry in the UAE during Covid-19: A non-probabilistic moderated-mediation model. *Journal of General Management*, *50*(2), 150–163. https://doi.org/10.1177/03063070221141201

Baker, E., Messerschmitt-Coen, S., & Granello, D. H. (2020). The Impact of Curiosity on Counselors' Social Justice Identity. *Journal for Social Action in Counseling & Psychology*, *12*(2), Article 2. https://doi.org/10.33043/JSACP.12.2.2-17

Bandura, A. (1986). Social foundations of thought and action. *Englewood Cliffs, NJ*, *1986*(23–28), 2.

Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, *117*(3), 497–529. https://doi.org/10.1037/0033-2909.117.3.497

Berlyne, D. E. (1954). A Theory of Human Curiosity. *British Journal of Psychology. General Section*, *45*(3), 180–191. https://doi.org/10.1111/j.2044-8295.1954.tb01243.x

Berlyne, D. E. (1960). *Conflict, arousal, and curiosity.*

Berlyne, D. E. (1966). Curiosity and Exploration. *Science*, *153*(3731), 25–33. https://doi.org/10.1126/science.153.3731.25

Black, A. E., & Deci, E. L. (2000). The effects of instructors' autonomy support and students' autonomous motivation on learning organic chemistry: A self-determination theory perspective. *Science Education*, *84*(6), 740–756. https://doi.org/10.1002/1098-237X(200011)84:6<740::AID-SCE4>3.0.CO;2-3

Cerasoli, C. P., Alliger, G. M., Donsbach, J. S., Mathieu, J. E., Tannenbaum, S. I., & Orvis, K. A. (2018). Antecedents and Outcomes of Informal Learning Behaviors: A Meta-Analysis. *Journal of Business and Psychology*, *33*(2), 203–230. https://doi.org/10.1007/s10869-017-9492-y

Chen, C., Zhang, J., & Gilal, F. G. (2019). Composition of motivation profiles at work using latent analysis: Theory and evidence. *Psychology Research and Behavior Management*, *Volume 12*, 811–824. https://doi.org/10.2147/PRBM.S210830

Chen, C.-C., & Tu, H.-Y. (2021). The Effect of Digital Game-Based Learning on Learning Motivation and Performance Under Social Cognitive Theory and Entrepreneurial Thinking. *Frontiers in Psychology*, *12*. https://doi.org/10.3389/fpsyg.2021.750711

Cortini, M., Pivetti, M., & Cervai, S. (2016). Learning Climate and Job Performance among Health Workers. A Pilot Study. *Frontiers in Psychology*, *7*. https://doi.org/10.3389/fpsyg.2016.01644

Deci, E. L. (1971). Effects of externally mediated rewards on intrinsic motivation. *Journal of Personality and Social Psychology*, *18*(1), 105–115. https://doi.org/10.1037/h0030644

Deci, E. L., & Ryan, R. M. (1985). *Intrinsic Motivation and Self-Determination in Human Behavior*. Springer US. https://doi.org/10.1007/978-1-4899-2271-7

Dewi, R., & Pradhanawati, A. (2021, March 5). *The Competitive Advantage of Batik SMEs Based on a Learning Organization*. Proceedings of the 5th International Conference on Indonesian Social and Political Enquiries, ICISPE 2020, 9-10 October 2020, Semarang, Indonesia. https://eudl.eu/doi/10.4108/eai.9-10-2020.2304783

Dholakia, U. M. (2006). How Customer Self-Determination Influences Relational Marketing Outcomes: Evidence from Longitudinal Field Studies. *Journal of Marketing Research*, *43*(1), 109–120. https://doi.org/10.1509/jmkr.43.1.109

Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, *18*(1), 39-50. https://doi.org/10.2307/3151312

Gamboa, V., Rodrigues, S., Bértolo, F., Marcelo, B., & Paixão, O. (2023). Curiosity saved the cat: Socio-emotional skills mediate the relationship between parental support and career exploration. *Frontiers in Psychology*, *14*. https://doi.org/10.3389/fpsyg.2023.1195534

Gino, F. (2018). The Business Case for Curiosity. *Harvard Business Review*. https://hbr.org/2018/09/the-business-case-for-curiosity

Gollwitzer, A., & Bargh, J. A. (2018). Social Psychological Skill and Its Correlates. *Social Psychology*. https://econtent.hogrefe.com/doi/10.1027/1864-9335/a000332

Groenendijk, T., Janssen, T., Rijlaarsdam, G., & van den Bergh, H. (2013). Learning to be creative. The effects of observational learning on students' design products and processes. *Learning and Instruction*, *28*, 35–47. https://doi.org/10.1016/j.learninstruc.2013.05.001

Han, S. H., Oh, E., Kang, S. P., Lee, S., & Park, S. H. (2022). The mediating role of informal learning on job performance: The work-learning dual system in South Korea. *Journal of Workplace Learning*, *34*(5), 437–454. https://doi.org/10.1108/JWL-07-2021-0101

Hardy, J. H., Ness, A. M., & Mecca, J. (2017). Outside the box: Epistemic curiosity as a predictor of creative problem solving and creative performance. *Personality and Individual Differences*, *104*, 230–237. https://doi.org/10.1016/j.paid.2016.08.004

Harrison, S. H., Sluss, D. M., & Ashforth, B. E. (2011). Curiosity adapted the cat: The role of trait curiosity in newcomer adaptation. *Journal of Applied Psychology*, *96*(1), 211–220. https://doi.org/10.1037/a0021647

Hartini, I. S., Sembiring, M. T., & Sadalia, I. (2023). *The Effect of Self-Efficacy and Readiness for Change on Employee Performance with Motivation as Intervening Variable (Study on Frontliner Employees at State-Owned Enterprise Bank Branch Offices in North Sumatra)*. 1225–1233. https://doi.org/10.2991/978-94-6463-234-7_129

Hayes, A. F. (2018). *Introduction to Mediation, Moderation and Conditional Process Analysis: A Regression-Based Approach*. The Guilford Press New York.

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, *43*(1), 115–135. https://doi.org/10.1007/s11747-014-0403-8

Hewett, R., & Conway, N. (2016). The undermining effect revisited: The salience of everyday verbal rewards and self-determined motivation. *Journal of Organizational Behavior*, *37*(3), 436–455. https://doi.org/10.1002/job.2051

Horstmeyer, A. (2020). The role of curiosity in workplace automation. *Development and Learning in Organizations: An International Journal*, *34*(6), 29–32. https://doi.org/10.1108/DLO-08-2019-0173

Johri, R., Misra, R. K., & Bhattacharjee, S. (2016). Work Passion: Construction of Reliable and Valid Measurement Scale in the Indian Context. *Global Business Review*, *17*(3_suppl), 147S-158S. https://doi.org/10.1177/0972150916631206

Kashdan, T. B., Gallagher, M. W., Silvia, P. J., Winterstein, B. P., Breen, W. E., Terhar, D., & Steger, M. F. (2009). The curiosity and exploration inventory-II: Development, factor structure, and psychometrics. *Journal of Research in Personality*, *43*(6), 987–998. https://doi.org/10.1016/j.jrp.2009.04.011

Kivetz, R. (2005). Promotion Reactance: The Role of Effort-Reward Congruity. *Journal of Consumer Research*, *31*(4), 725–736. https://doi.org/10.1086/426606

Lee, A. (2024). The Relation between Motivation and Goal Attainment: A Correlational Meta-Analysis. *Japanese Psychological Research*, *66*(2), 114–137. https://doi.org/10.1111/jpr.12486

Lepper, M. R., Greene, D., & Nisbett, R. E. (1973). Undermining children's intrinsic interest with extrinsic reward: A test of the "overjustification" hypothesis. *Journal of Personality and Social Psychology*, *28*(1), 129–137. https://doi.org/10.1037/h0035519

Liao, G., Zhou, J., & Yin, J. (2022). Effect of Organizational Socialization of New Employees on Team Innovation Performance: A Cross-Level Model. *Psychology Research and Behavior Management*, *15*, 1017–1031. https://doi.org/10.2147/PRBM.S359773

Litman, J. A. (2008). Interest and deprivation factors of epistemic curiosity. *Personality and Individual Differences*, *44*(7), 1585–1595. https://doi.org/10.1016/j.paid.2008.01.014

Litman, J. A., & Jimerson, T. L. (2004). The Measurement of Curiosity As a Feeling of Deprivation. *Journal of Personality Assessment*, *82*(2), 147–157. https://doi.org/10.1207/s15327752jpa8202_3

Liu, J., Tahri, D., & Qiang, F. (2024a). How Does Active Learning Pedagogy Shape Learner Curiosity? A Multi-Site Mediator Study of Learner Engagement among 45,972 Children. *Journal of Intelligence*, *12*(6), 59. https://doi.org/10.3390/jintelligence12060059

Liu, J., Tahri, D., & Qiang, F. (2024b). How Does Active Learning Pedagogy Shape Learner Curiosity? A Multi-Site Mediator Study of Learner Engagement among 45,972 Children. *Journal of Intelligence*, *12*(6), 59. https://doi.org/10.3390/jintelligence12060059

Loewenstein, G. (1994). The psychology of curiosity: A review and reinterpretation. *Psychological Bulletin*, *116*(1), 75.

Maggiori, C., Rossier, J., & Savickas, M. L. (2017). Career Adapt-Abilities Scale–Short Form (CAAS-SF): Construction and Validation. *Journal of Career Assessment*, *25*(2), 312–325. https://doi.org/10.1177/1069072714565856

Malhotra, N. K., & Dash, S. (2011). *Marketing Research an Applied Orientation*. Pearson Publishing.

Mussel, P., & Spengler, M. (2015). Investigating intellect from a trait activation perspective: Identification of situational moderators for the correlation with work-related criteria. *Journal of Research in Personality*, *55*, 51–60. Scopus. https://doi.org/10.1016/j.jrp.2015.01.002

Noermijati, N., & Primasari, D. (2015). The effect of job stress and job motivation on employeesâ€™ performance through job satisfaction (A study at PT. Jasa Marga (Persero) Tbk. Surabaya—Gempol branch). *Journal of Economics, Business, and Accountancy Ventura*, *18*(2), Article 2. https://doi.org/10.14414/jebav.v18i2.450

Park, Y., Woo, H., Oh, M.-R., & Park, S. (2020). The role and related variables of workplace learning in quantitative research. *Industrial and Commercial Training*, *53*(1), 29–59. https://doi.org/10.1108/ICT-02-2020-0023

Porfeli, E. J., & Savickas, M. L. (2012). Career Adapt-Abilities Scale-USA Form: Psychometric properties and relation to vocational identity. In *Journal of Vocational Behavior,* 80(3), 48–753. https://doi.org/10.1016/j.jvb.2012.01.009

Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, *40*(3), 879–891. https://doi.org/10.3758/BRM.40.3.879

Reio Jr., T. G., & Callahan, J. L. (2004). Affect, curiosity, and socialization-related learning: A path analysis of antecedents to job performance. *Journal of Business and Psychology*, *19*(1), 3–22. Scopus. https://doi.org/10.1023/B:JOBU.0000040269.72795.ce

Reio, T. G., & Wiswell, A. (2000). Field investigation of the relationship among adult curiosity, workplace learning, and job performance. *Human Resource Development Quarterly*, *11*(1), 5–30. https://doi.org/10.1002/1532-1096(200021)11:1<5::AID-HRDQ2>3.0.CO;2-A

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, *55*(1), 68–78. https://doi.org/10.1037/0003-066X.55.1.68

Ryan, R. M., & Deci, E. L. (2009). Promoting self-determined school engagement: Motivation, learning, and well-being. *Handbook of motivation at school*, 171–195. Routledge/Taylor & Francis Group. https://doi.org/10.4324/9780203879498

Ryan, R. M., Mims, V., & Koestner, R. (1983). Relation of reward contingency and interpersonal context to intrinsic motivation: A review and test using cognitive evaluation theory. *Journal of Personality and Social Psychology*, *45*(4), 736–750. https://doi.org/10.1037/0022-3514.45.4.736

Sanwal, T., & Sareen, P. (2023). Higher Employee Engagement through Social Intelligence: A Perspective of Indian Scenario. *Employee Responsibilities and Rights Journal*, *35*(1), 111–126. https://doi.org/10.1007/s10672-022-09404-7

SAS Institute Inc. (2021). *Curiosity@Work Report* (pp. 1–29). https://www.sas.com/content/dam/SAS/documents/corporate-collateral/brochures/en-curiosity-at-work-112457.pdf

Savickas, M. L. (2005). The theory and practice of career construction. In *Career development and counseling: Putting theory and research to work,* 42–70. Wiley.

Schunk, D. H., & DiBenedetto, M. K. (2020). Motivation and social cognitive theory. *Contemporary Educational Psychology*, *60*, 101832. https://doi.org/10.1016/j.cedpsych.2019.101832

Selasse, E. A. (2022). Effect of Emotional Intelligence of Employees on Their Performance At Work,". *Malaysian Business Management Journal*, *1*(2), 66–69.

Shigeoka, S. (2023). 4 Phrases That Build a Culture of Curiosity. *Harvard Business Review*. https://hbr.org/2023/11/4-phrases-that-build-a-culture-of-curiosity

Silvera, D. H., Martinussen, M., & Dahl, T. I. (2001). *The Troms÷ Social Intelligence Scale, a self-report measure of social intelligence*, 42(4), 313-319.

Singh, A., & Manjaly, J. A. (2022). Using Curiosity to Improve Learning Outcomes in Schools. *Sage Open*, *12*(1), 21582440211069392. https://doi.org/10.1177/21582440211069392

Siregar, B. A. (2021). Relationship of Self-Efficacy to Improving Employee Performance: to Study in Medan City. *Strategic Management Business Journal*, *1*(01). https://doi.org/10.55751/smbj.v1i01.7

Stupnisky, R. H., BrckaLorenz, A., & Laird, T. F. N. (2019). How does faculty research motivation type relate to success? A test of self-determination theory. *International Journal of Educational Research*, *98*, 25–35. https://doi.org/10.1016/j.ijer.2019.08.007

Triswanto, H., & Yunita, L. (2022). The Influence of Intrinsic Motivation and Extrinsic Motivation on Employee Performance Productivity of PT. Weigh Deli Indonesia. *Journal of Economics and Business (JECOMBI)*, *2*(2). https://doi.org/10.58471/jecombi.v2i2.22

Vancouver, J. B., Thompson, C. M., Tischner, E. C., & Putka, D. J. (2002). Two studies examining the negative effect of self-efficacy on performance. *Journal of Applied Psychology*, *87*(3), 506–516. https://doi.org/10.1037/0021-9010.87.3.506

Vansteenkiste, M., Simons, J., Lens, W., Sheldon, K. M., & Deci, E. L. (2004). Motivating Learning, Performance, and Persistence: The Synergistic Effects of Intrinsic Goal Contents and Autonomy-Supportive Contexts. *Journal of Personality and Social Psychology*, *87*(2), 246–260. https://doi.org/10.1037/0022-3514.87.2.246

Way, N., & Taffe, R. (2024). Interpersonal Curiosity: A Missing Construct in the Field of Human Development. *Human Development*, *69(2), 79-90*. https://doi.org/10.1159/000542162

Wijayanto, B. K., & Riani, A. L. (2021). The Influence of Work Competency and Motivation on Employee Performance. *Society*, *9*(1). https://doi.org/10.33019/society.v9i1.290

Zaleska, K. J., & de Menezes, L. M. (2007). Human resources development practices and their association with employee attitudes: Between traditional and new careers. *Human Relations*, *60*(7), 987–1018. https://doi.org/10.1177/0018726707081155

Zulkifli, Z., Hashim, I. H. M., & Yahaya, M. (2021). *Validity and Reliability of the Tromso Social Intelligence Scale (TSIS): A Study of Malaysian Teachers*. Journal of Human Development and Communication, *10, 99-104*.