

IMPACT OF PROBLEM-SOLVING SKILLS AND PROACTIVE PERSONALITY ON INNOVATIVE WORK BEHAVIOUR THROUGH LEARNING DEMAND PATHWAY: A FRAMEWORK TO COMBAT THE EFFECTS OF PANDEMICS LIKE COVID-19

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ABSTRACT

The aim of the study is to introduce a framework grounded on proactive personality and problem-solving skills strengthening the innovative work behaviour through learning demand pathway. Potential model would provide aid to educational institutions and serve as a safeguard against the havocs of the devastating effects of Covid-19. This study uses two-time lag and multisource structured questionnaire for 538 teachers. Empirical results exhibit the strong associations among the factors within the framework except job autonomy which have low negative effect. The study suggests the stakeholders and policy makers of the educational institutions to follow the potential model in the hiring process of faculty members by ensuring the qualities like proactive personality, problem-solving skill, and innovative behavior. These faculty members must be trained first to nurture their qualities to enable them to be effective during pandemic situations and should also follow central learning process across institutions.

Keywords: Problem-Solving Skills, Proactive Personality, Learning Demand and Job Autonomy, Innovative Work Behavior

INTRODUCTION

Globally, work dynamics are changed due to the COVID-19 disaster. COVID-19 is unique from other disasters as COVID-19 continually affects the economy (Affouneh, Salha & Khlaif, 2020). This pandemic had an intense impact on every sector, especially the educational sector. Therefore, to deal with the COVID 19 pandemic situation, it becomes the dire need of the educational institutes to adopt alternative tools and ways to teach the student, such as hybrid or online classrooms, etc. Consequently, educational institutes entail teachers to learn and espouse new techniques to impart knowledge and solve students' problems innovatively (Affouneh, Salha & Khlaif, 2020; Khlaif et al., 2020; Pressley, 2021). So, teachers need to indulge in learning and adopting the new technological tools to meet the demand of the institutes to cope with the COVID-19 consequences.

The literature explains Learning Demand (LD) as "employees who need to acquire knowledge and skills that are necessary to perform their jobs effectively" (Kubicek, Paškvan & Korunka, 2015). Learning is a perpetual process of improvement in the human life cycle

(Bronfenbrenner, 1986; Vygotsky, 1978). Therefore, teachers need to upgrade their teaching methodologies by learning new digital tools enabling them to accomplish their assignments dutifully and effectively (Abdallah, 2021). Teachers being good learners must have Problem-Solving Skills (PSS). Mohamed & Badrul Omar (2010) also highlighted that efficient learner must have PSS. PSS is a technique to figure out the problem in numerous situations, search and enforce the best available solutions (Yu, Fan & Lin, 2015). Persons with PSS can explore in a difficult situation, (Lucenario et al., 2016) new techniques to execute their duties efficiently (Khoiriyah & Java, 2018). Therefore, educational institutes need teachers with quick learning ability and PSS to get over this pandemic situation.

Characteristically teachers must also be proactive, and they should predict the future and learn the new tools and techniques to deal with the modern trends. A PP refers to a person who can find opportunities and take the initiative for healthy change (Bateman & Crant, 1993). Proactive individuals also have the ability to foresight, and also they are self-directed and self-initiated (Zhao et al., 2016). As Zambianchi (2009) also explains, proactive employees can take the initiative, bring change, learn new things, and come with the best possible solutions. A proactive teacher can smell the institution's future demands and make him involved in the learning process to fulfill the institutional demands efficiently and effectively. So, teachers with proactive behaviour and PSS will learn and adopt new approaches and techniques, ultimately leading to IWB at the institution.

To survive in the pandemic era, educational institutes must promote learning and IWB, and teachers with learning behaviour must perform their academic responsibilities innovatively (Shah et al., 2020). Based on the above argument, in an organization, innovation depends upon the teacher's conduct. So, it's a teacher who has PSS and takes the initiative to learn the new methods and perform their duties innovatively. To strengthen the relationship between LD and IWB, teachers must have the autonomy to perform their duties. Because employees with JA have more choices (Ho & Nesbit, 2014), being free to perform their duties (Langfred, 2004) can enhance the teacher's IWB at the workplace (Cai et al., 2018).

This study's objective is to discover the new antecedents of the LD of educational institutions during Covid 19, such as PSS and PP. This study will also test how the LD of educational institutions, which is created due to covid-19 pandemics, strengthens the relationship between PSS, PP, and IWB.

LITERATURE REVIEW, HYPOTHESIS, AND THEORY SUPPORT

In this study, we would like to introduce a framework that will help educational institutions survive during the covid-19 pandemic. For this very purpose, we introduce new antecedents of LD: PP and PSS. Furthermore, this study presents a new LD pathway that might strengthen the relationship between PP, PSS, and IWB. Moreover, this study also considers JA factor that can moderate the relationship between LD and IWB.

Proactive Personality and Learning Demand

PP is described as "personality describes people who recognize opportunities, take initiative and action, and persevere until a meaningful change takes place" (Crant, 1995). Proactive employees can foresee and analyze the problems and love to take the initiative to

resolve them. As Zhao, et al., (2016) explain that proactive workers love to bring constructive change. Proactive teachers are more energetic, dynamic, and anxious to learn work environment (Nadeem, Alvi & Rahman, 2021). So, proactive teachers are good learners. To deliver the knowledge in the Covid-19 pandemic, they quickly learn and adopt new techniques to perform their duties efficiently. The best way to enhance an individual's ability is through learning. Proactive teachers are ambitious to learn new techniques to perform their tasks effectively (Zhao et al., 2016). According to (Parker & Sprigg, 1999) proactive employees are loyal to an organization because they want to bring positive change; they are involved in the learning process. This relationship is also supported by the Theory of Planned Behaviour (TPB) from the perceived behavioural controlled perspective as a proactive teacher always involved in anticipating the future needs and ultimately indulging in learning new things to fulfil the future needs (Ajzen, 1991). Therefore, the above discussion shows that there will be a positive relationship between PP and LD.

H1 PP has a positive impact on LD.

Problem Solving Skills and Learning Demand

Employees with PSS can handle the problem well in different situations and find the best solution (Yu et al., 2015). Teachers with PSS develop their personalities by enhancing their professional and technical skills (Chang et al., 2017). Problem solver can find their way in numerous conditions (Lucenario et al., 2016) and learn and adopt new methods to deliver efficiently (Khoiriyah et al., 2018). Teachers with PSS are more relevant and vital in the Covid-19 situation because they are more curious to upgrade their abilities and skills to deliver knowledge to students efficiently. This curious behaviour leads to learning, new strategies, and digital tools to solve the student's problem. Prior literature claims that teachers with PSS are keen to learn new things to enhance their performance (Shanta & Wells, 2020). The TPB also supports this notion from the perceived behavioural controlled perspective as a teacher with PSS who intends to solve the problem will ultimately involve the learning process (Ajzen, 1991). Therefore, in this study, we assume that there will be a positive relationship between PSS and LD.

H2 PSS has a positive impact on LD.

Learning Demand and Innovative Work Behaviour

LD refers to grasping new knowledge and techniques to become effective (Kubicek et al., 2015). Learning is a continuous development procedure in the human life cycle (Bronfenbrenner, 1986; Kubicek et al., 2015). LD is a vital factor for educational sector performance, especially in Covid-19, because teachers need to go out of the box to resolve the problem of students. Hence teachers must learn advanced teaching methods to deliver knowledge (Khlaif et al., 2020). Prior literature explains "a continuous commitment to learning is central to innovativeness" (Rhee, Park & Lee, 2010). The TPB also supports LD and IWB relationships. Learning is a fundamental phase in generating novel ideas (Weisberg, 1999); novel ideas lead to IWB (Scott and Bruce 1994). So, LD is intentional behaviour that leads to IWB, which is within the boundaries of the theory of planned behaviour. Learning attitude also paves the way in creating and implementing novel ideas (Sujan, Weitz & Kumar, 1994; Zhao et al., 2018). Therefore, teachers must have

learning behaviour that ultimately leads to IWB. So educational institutes must have teachers who love to learn and find innovative solutions to survive in Covid-19. Hence in this study, we assume that there will be a positive relationship between LD and IWB.

H3 LD has a positive impact on IWB.

Job Autonomy, Learning Demand, and Innovative Work Behaviour

Literature introduced another significant variable, JA, which might moderate the relationship between LD and IWB. JA is described as employees having the freedom to choose their way to perform duties (Hackman & Oldham, 1976), considered a crucial predictor of individual Innovation (Liu, Chen & Yao, 2011; Scott, et al., 1994). Hence autonomous teachers are free to learn and implement the new techniques for delivering knowledge. Moreover, autonomous teachers are free to choose their way to perform their duties (Ho & Nesbit, 2014; Langfred & Moye, 2004), which can boost the teacher's innovativeness (Cai et al., 2018). This conception is also linked with TPB as perceived behavioural control comprises two components: self-efficacy and controllability, leading to the behaviour. So, Job autonomy is a component of perceived behavioural control that leads to LD and IWB. Hence, job autonomy might strengthen the relationship between LD and IWB.

H4 JA moderates the relationship between LD and IWB.

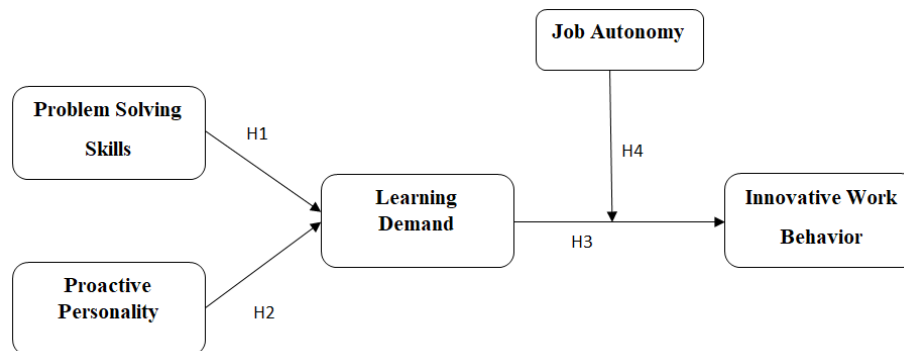


FIGURE 1
RESEARCH FRAMEWORK

METHODOLOGY

Research Design

The study adopts measures of proactive personality, problem-solving skills, learning demand, job autonomy, and IWB. In this study, we used a cross-sectional survey to collect data. Two-time lag and multi-source structured questionnaires were got filled by the teachers.

Population, Sampling and Statistical Technique

In this study, data were collected from the education sector because in Covid-19 pandemic education sector needs teachers who learn new techniques and adopt innovative ways

to deliver. The non-probability convenience sampling technique was used to collect data. In the first-time lag, 900 questionnaires consisting of PSS and PP scales were distributed to academicians employed in different educational institutes of Pakistan; out of which 690 were collected. In the second time lag, 690 questionnaires consisting of LD were distributed to the same academicians again who were responded in the first-time lag. To reduce the common method biases, in the second time lag IWB questionnaire got filled by the head of the institutes about their faculty member who were respondents. Finally, the study incorporates the 538 refined responses. This study used SPSS 22 and AMOS 22 for descriptive, test the hypothesis, variable reliability, and other analysis. Demographics of academicians reveal that 61.33% are female and 38.67% are male, most of them aged limit is between 20 and 40 years (92.75%), and majority (79.74%) respondent have completed their graduation (16 years) and remaining (20.26%) are done post-graduation (MPhil & PhD).

Measures

In this study, all variables measured on a five-point Likert scale affixed with 5 strongly agree to 1 strongly disagree.

Proactive Personality

Five items measuring scale is adopted from (Janssen, Schultze & Grötsch, 2015), sample item is (If I see something I don't like, I fix it). This scale scores Cronbach's alpha ($\alpha=0.913$) which is highly significant.

Problem Solving Skills

Taking one dimension out of five of digital competence scale named European Commission DigComp 2.0 framework for PSS. PSS are measured by five items scale from (EU Commission, 2017), sample item is (I could find solutions to technical problems by searching online). This scale has good Cronbach's alpha ($\alpha=0.851$).

Learning Demand

Three items scale is adopted from (Kubicek et al., 2015), sample item is (This morning, my job required me to update my knowledge level). This scale has a highly significant value of Cronbach's alpha ($\alpha=0.88$).

Job Autonomy

Three items scale measuring JA is adopted from (Stephen, 2006), and its sample line item is (The job allows me to make a lot of decisions on my own). This scale also has a highly significant value of Cronbach's alpha ($\alpha=0.886$).

Innovative Work Behavior

Finally, IWB is measured by ten items scale is adopted from (De Jong & Den Hartog, 2010), sample item is (He often pays attention to issues that are no part of his daily work). This scale scores Cronbach's alpha ($\alpha=0.766$) which is significant.

Measure Validation

Reliability test is conducted by applying Cronbach's alpha, the construct of all variables demonstrate reliability due to their Cronbach's alpha value shown in table 1 being more than 0.70 (Cronbach 1951). That means the questionnaire consistently represents the latent variables. Moreover, table 1 show the convergent validity, which clearly shows that AVE is more than 0.5. It implies that the validity of variables is statistically significant.

Latent Variable	Observed Variable	Factor Loading	Cronbach's Alpha	AVE
Problem Solving Skills	PSS1	0.701	0.851	0.536
	PSS2	0.719		
	PSS3	0.78		
	PSS4	0.777		
	PSS5	0.678		
Proactive Personality	PP1	0.726	0.931	0.682
	PP2	0.81		
	PP3	0.854		
	PP4	0.848		
	PP5	0.882		
Learning Demand	LD1	0.84	0.88	0.712
	LD2	0.864		
	LD3	0.827		
Job Autonomy	JA1	0.902	0.886	0.829
	JA2	0.91		
	JA3	0.92		
Innovative Work Behavior	IWB1	0.758	0.766	0.522
	IWB2	0.63		
	IWB3	0.641		
	IWB4	0.758		
	IWB5	0.798		
	IWB6	0.753		
	IWB7	0.65		
	IWB8	0.72		
	IWB9	0.633		
	IWB10	0.85		

Finally, in this section discriminant validity is determined from the technique of (Holmes-Smith, n.d.), according to this technique square root of AVE is more than the correlation of each construct with all others. Table 2 shows the values of discriminant validity.

Construct	Discriminant validity				
	1	2	3	4	5
PSS	0.732				
PP	0.542**	0.826			
LD	0.437**	0.432**	0.844		
JA	0.515**	0.785**	0.383**	0.911	
IWB	0.525**	0.403**	0.713**	0.361**	0.723

Note: PSS: Problem Solving Skills, PP: Proactive Personality, LD: Learning Demand, JA: Job Autonomy, IWB: Innovative Work Behavior.

DATA ANALYSIS & RESULTS

In this section, the results which are crucial for the validation of the study e.g., descriptive, correlations, model fitness, and hypothesis testing, etc. have been portrayed.

Descriptive and Correlation Matrix

In table 3, we find numbers of responses, minimum value, maximum value, mean and standard deviation. There are 538 respondents in the data. Minimum value of PSS, PP, LD, JA and IWB goes as 2.6, 3.2, 3.33, 3.33 and 3.9 respectively. Maximum value of all variables is 5 in the table. For better understanding of sample features, we can estimate mean and standard deviation. High mean value means respondent is highly agree with the variable. Mean and standard deviation values are PSS (Mean=4.45, SD=0.63), PP (Mean=4.66, SD=0.53), LD (Mean=4.66, SD=0.54), JA (Mean=4.63, SD=0.57), and IWB (Mean=4.67, SD=0.28). Additionally Table 2 clearly depicts that LD has significant positive correlation with PSS ($r=0.437$, $p<0.01$) and PP ($r=0.432$, $p<0.01$). LD has high positive correlation with IWB ($r=0.713$, $p<0.01$). Furthermore, a moderator (JA) has significant positive correlation with both LD ($r=0.383$, $p<0.01$) and IWB ($r=0.361$, $p<0.01$).

S.No		N	Mini	Maxi	Mean	Std. Deviation	1	2	3	4	5
1	PSS	538	2.6	5	4.45	0.63	1				
2	PP	538	3.2	5	4.66	0.53	0.542**	1			
3	LD	538	3.33	5	4.66	0.54	0.437**	0.432**	1		
4	JA	538	3.33	5	4.63	0.57	0.515**	0.785**	0.383**	1	
5	IWB	538	3.9	5	4.67	0.28	0.525**	0.403**	0.713**	0.361**	1

Note: **. Correlation is significant at the 0.01 level (2-tailed).

Model Fitness & Hypothesis Testing

We use the SEM to check the model fitness and hypothesis testing. The results_ (TLI= 1.003>0.90 (Kline 2005), IFI=1>0.90, CFI=1>0.90, and RAMSEA=0.000<0.08 (Holmes-Smith, n.d.)) represent that our model is a good fit. Figure 2 presents that all hypotheses have a significant impact, as their p-value is less than 0.01. PSS and PP have a positive significant impact on LD, as their path coefficients of H1 and H2 are 0.246***< 0.01, 0.278***< 0.01 respectively. Hence both the hypotheses are strongly supported. Similarly, LD has a positive significant effect on IWB, as its path coefficient is 0.457***< 0.01, so H3 is also supported. But JA has a negative significant impact on LD and IWB, as its path coefficient is -0.009***< 0.01, holding H4 as supported.

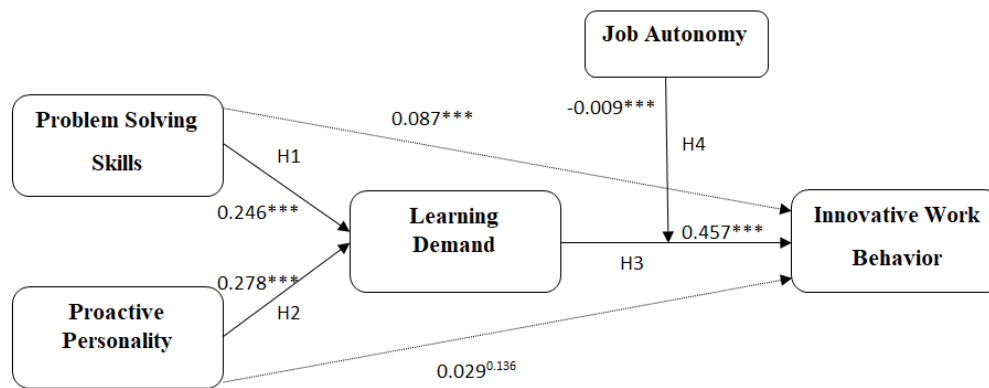


FIGURE 2
HYPOTHESIS TESTING AND RESULTS

Note: ***p< 0.01

DISCUSSION

In the result section, H1 supported means PSS has a significant positive impact on LD. It means a person with PSS meets the LD of educational institutions arising due to the pandemic of Covid-19. As teachers learn new techniques, online applications, and new tools that reduce the knowledge deliverance deficiency due to online classes. Whereas in figure 2 dotted line shows that PSS skills have a significant positive impact on IWB, as its path coefficient is 0.087***< 0.01 which means partial mediation exists in the first path of the modal. This means PSS skills not only have a significant effect on LD but also on the IWB. So a teacher having PSS learns new skills and performs job tasks innovatively.

PP has a positive substantial impact on LD. It indicates the proactive teacher who can predict or smell up the changes and challenges, getting ready to update knowledge and skills to perform duty tasks effectively in Covid-19. So proactive teachers can learn new methods and techniques for the deliverance of knowledge and be relevant in a challenging situation like Covid-19 etc. but in figure 2 2nd dotted line shows that PP has an insignificant impact on IWB, as its path coefficient is 0.0290.136<0.01, Its p-value is insignificant as it is more than 0.01, which indicates full mediation PP teacher has a positive significant impact on LD but no direct significant impact on IWB.

Furthermore, LD has a significant positive impact on IWB as may be seen in the result section that H3 is strongly supported because of the highest path coefficient (0.457***< 0.01),

indicating that teachers having learning ability are effective for innovation. Especially, Covid-19 has changed the work dynamics globally. Due to this LD creates a positive or motivational effect on teachers as they need to survive as well as be relevant. Hence for this very purpose, they indulge in learning new tools and techniques which leads to IWB. The path of learning towards innovation is much needed to overcome in the pandemic situation of Covid-19.

So teachers with PSS and PP personalities indulged in learning new ways to perform their job tasks effectively. That learning behaviour of teachers leads to IWB, as we mention earlier its individual who innovate not the organization. Hence the pathway used in the study model will help educational institutes to handle extraordinary situations like Covid-19 etc. But on the other hand, JA negatively affects the LD and IWB relationship up to a little extent, which may not affect the overall process of innovation. So under these circumstances, JA may not be feasible for the educational institutes, in a way teachers might miss use of powers, etc. Hence educational institutes should follow the central learning process to overcome the minor negative impact of JA.

TPB also supports the H1 and H2 from the perceived behavioral controlled perspectives a proactive teacher is always involved in anticipating the future needs and ultimately indulged in learning new things and a teacher with PSS intends to solve the problem innovatively and ultimately involve in the learning process (Ajzen, 1991). H3 is also supported by TPB as LD is intentional behaviour that leads to IWB. H4 is not significantly supported by the statistical results but TPB supports this conception.

CONCLUSION

The framework introduced in this study facilitates the educational institutions by equipping them with such faculty members as having innovative and boosting learning behaviors. In this study, two new factors i.e. PSS and PP have been introduced which assist the faculty members of the educational institutions in enhancing their learning behaviour. Both the antecedents have a positive impact on LD as the teacher with PP recognizes the future opportunities and needs of the jobs, takes initiative, and continues until meaningful change occurs. Whereas teachers having PSS can deal with the crunch situations and find the best solutions to get out the difficult situations. So both antecedents lead towards the learning process. LD also has a positive significant relationship with IWB, as learning behaviour enables individuals to learn new techniques and tools to perform their job tasks efficiently. Because learning behaviour is a fundamental phase of generating novel ideas, that further leads to IWB. Furthermore, our results also show that JA hurts LD and IWB's relationship but a little.

Implications

The study will contribute to the literature in several important ways. Firstly, the direct relationship between PSS and PP with LD is a new contribution in the literature. Secondly, the LD strengthening the PSS and PP relationship with IWB is another significant contribution to IWB literature. Finally, the moderating role of JA between LD and IWB not yet tested is another addition to the existing literature.

Key implications of the study are: To avoid the pandemic situations like Covid-19, educational institutions must hire teachers who love to learn and find innovative solutions to get

out of the crunch situations. Heads of the educational institutions must also take into consideration the PP and PSS of the candidate to be appointed as a teacher. Once the Head identified the candidate with the potential of PSS and possessing a PP must get hired but trained first to nurture their PSS and PP to be most effective in pandemic situations. Moreover, study results indicate that JA may not be feasible for educational institutions, maybe due to the misuse of delegated powers or freedom of work. So, Heads should follow the central learning process across the faculty members of the educational institutions.

Study Limitations and Future Direction

This study is also not free from limitations. Such as only two antecedents of LD and IWB are taken in this study and our diversity of the sample is also limited to some cities of Punjab, not across Punjab. Future research must also consider the other factors that might foster the LD and IWB and also segregate the results of public and private institutions. Moreover, this study can be replicated to the other sectors of the economy as they are also being affected by the outbreak of the Covid-19 pandemic.

REFERENCES

- Abdallah ,T., & Brihan, F. (2021). The quality of e-learning in higher education institutions under the conditions of corona-virus pandemic (Covid-19) the moderation effect of time pressure and learning demand. *Arab Journal of Administration*, 41, 295–308.
- Affouneh, S., Salha, S., & Khlaif, Z. N. (2020). Designing quality e-learning environments for emergency remote teaching in coronavirus crisis. *Interdisciplinary Journal of Virtual Learning in Medical Sciences*, 11(2), 1–3.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, 179–211.
- Bateman, T.S., & Michael, J.C. (1993). The proactive component of organizational behavior : A measure and correlates. *Journal of Organizational Behavior*, 14, 103–18.
- Bronfenbrenner, U. (1986). *Recent advances in research on human development*. New York: NY: Springer.
- Cai, W., Evgenia I.L., Svetlana, N.K., & Bart A.G.B. (2018). Servant leadership and innovative work behavior in chinese high-tech firms: A moderated mediation model of meaningful work and job autonomy. *Frontiers in Psychology*, 9, 1767.
- Chang, H.C., Ning, Y.W., Wen Ru, K., You, T.Y., Long Y.L., & Hui F.T. (2017). The effectiveness of clinical problem-based learning model of medico-Jurisprudence education on general law knowledge for obstetrics/gynecological interns. *Taiwanese Journal of Obstetrics and Gynecology*, 56(3), 325–30.
- Crant, J.M. (1995). The proactive personality scale and objective job performance among real estate agents. *Journal of Applied Psychology*, 80(4), 532–37.
- Cronbach, L.J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16(3), 297–334.
- EU Commission. (2017). *Digital competence framework for educators*. Dig Comp Edu.
- Hackman, J.R., & Greg, R.O. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior and Human Performance*, 16(2), 250–79.
- Ho, J., & Paul, L.N. (2014). Self-leadership in a Chinese context: Work outcomes and the moderating role of job autonomy. *Group and Organization Management*, 39(4), 389–415.
- Holmes-Smith, P. (n.d.). *Introduction to structural equation modelling using AMOS 4.0*. Course Notes; SREAMS: Melbourne, Australia.
- Janssen, A.B., Martin, S., & Adrian, G. (2015). Corrected proof – Not final following the ants development of short scales for proactive personality and supervisor support by ant colony optimization. *European Journal of Psychological Assessment*.
- De Jong, J., & Den Hartog, D. (2010). Measuring innovative work behavior. *Creativity and Innovation Management*, 19(1), 23–36.

- Khlaif, Z.N., Soheil, S., Saida, A., Hadi, R., & Lotfia Ali, E. (2020). The covid-19 epidemic : Teachers responses to school closure in developing countries. *Technology, Pedagogy and Education, 00(00)*, 1–15.
- Khoiriyah, A.J., East, J., & East, J. (2018). Problem-based learning : Creative thinking skills, problem-solving skills, and learning outcome of seventh grade.
- Kline, R.B. (2005). Principles and practice of structural equation modeling. *Methodology in the Social Sciences, 2*, 366.
- Kubicek, B., Matea, P., & Christian, K. (2015). Development and validation of an instrument for assessing job demands arising from accelerated change: The intensification of Job Demands Scale (JDS). *European Journal of Work and Organizational Psychology, 24(6)*, 898–913.
- Langfred, C.W. (2004). Too much of a good thing? Negative effects of high truse and individual autonomy in self managing teams. *Academy of Management Journal, 47(3)*, 385–99.
- Langfred, C.W., & Neta A.M. (2004). Effects of task autonomy on performance: An extended model considering motivational, informational, and structural mechanisms. *Journal of Applied Psychology, 89(6)*, 934–45.
- Liu, D., Xiao Ping, C., & Xin Y. (2011). From autonomy to creativity: a multilevel investigation of the mediating role of harmonious passion. *Journal of Applied Psychology, 96(2)*, 294–309.
- John Lou, S., Rosanelia, T.Y., Amelia, E.P., & Allen, A.E. (2016). Pedagogical content knowledge-Guided lesson study : effects on teacher competence and students. *Achievement in Chemistry, 1–9*.
- Mohamed, W., Azlinda, W., & Badrul, O. (2010). Through work-based learning among community college. *Journal of Technical Education and Training (JTET), 2(1)*, 1–8.
- Nadeem, M.A., Abdul Khaliq, A., & Khalil, U.R. (2021). The relationship of proactive personality with the organizational. *Journal of Research, 37(2)*, 134–41.
- Parker, S.K., & Christine A.S. (1999). Minimizing strain and maximizing learning: the role of job demands, job control, and proactive personality. *Journal of Applied Psychology, 84(6)*, 925–39.
- Pressley, T. (2021). Factors contributing to teacher burnout during covid-19. *Educational Researcher, 325–27*.
- Rhee, J., Park, T., & Lee, D.H. (2010). Drivers of innovativeness and performance for innovative smes in south korea: mediation of learning orientation. *Technovation, 30(1)*, 65–75.
- Scott, S.G., & Reginald, A.B. (1994). Determinants of innovative behavior : A path model of individual innovation in the workplace.
- Scott, S.G., Reginald A.B., Susanne, G.S., & Reginald A.B. (1994). The birth of a century: Early color photographs of America. *Choice Reviews Online, 32(03)*, 1332-1325.
- Shah, S.I., Asad, S., Bilal, A., Sajjad A.A., & Bilal, B.S. (2020). The dynamics of leader technical competence, subordinate learning, and innovative work behaviors in high-tech, knowledge-Based industry. *Economic Research, 33(1)*, 623–38.
- Shanta, S., & John, G.W. (2020). T/E design based learning: Assessing student critical thinking and problem solving abilities. *International Journal of Technology and Design Education*.
- Stephen, E.H., & Frederick, P.M. (2006). The Work Design Questionnaire (WDQ): Developing and validating a comprehensive measure for assessing job design and the nature of work. *Journal of Applied Psychology, 91(6)*, 1321–39.
- Sujan, H., Weitz, B.A., & Kumar, N. (1994). Learning orientation, working smart, and effective selling. *The Journal of Marketing, 58(3)*, 39–52.
- Vygotsky, L.S. (1978). *Mind in society: The development of higher psychological processes*. MA: Harvard University Press.
- Weisberg, R. (1999). *Creativity and knowledge: A Challenge to theories*. New York: Cambridge University Press.
- Yu, K.C., Szu Chun, F., & Kuen, Y.L. (2015). Enhancing students problem-Solving skills through context-Based learning. *International Journal of Science and Mathematics Education, 13(6)*, 1377–1401.
- Zambianchi, M. (2009). Proactive personality, social well-being and civic participation in emerging adulthood.
- Zhao, Y., Niu, G., Hou, H., Zeng, G., Xu, L., Peng, K., & Yu, F. (2018). From growth mindset to grit in Chinese schools: The mediating roles of learning motivations. *Frontiers in Psychology, 9*.
- Zhao, X., Mi, Z., Qian, L., & Hua, K. (2016). Proactive personality as a moderator between work stress and employees. *Internal Growth, 44(4)*.

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