

RISK-TAKING BEHAVIOUR AMONG SCHOOL TEACHERS AT DIFFERENT LEVELS OF ADJUSTMENT: A COMPARATIVE STUDY WITH REFERENCE TO GENDER, LOCALE, AND ORGANIZATIONAL SETUP

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ABSTRACT

This study examined risk-taking behaviour among school teachers at low, average, and high levels of adjustment and compared the behaviour with reference to gender, rural-urban locale, and government-private organizational setup. A quantitative, cross-sectional, descriptive-comparative survey design was used. Primary data were collected from a sample of 256 school teachers selected through multistage proportionate stratified random sampling from government and private schools in four districts of Punjab. The Risk Taking Questionnaire developed by Sinha and Arora and the short form of the Mangal Teacher Adjustment Inventory were administered through a structured questionnaire schedule. IBM SPSS Statistics 26 was used for descriptive statistics, reliability analysis, independent-samples t-tests, one-way analysis of variance, Tukey post hoc comparisons, and factorial analysis of variance using Type III sums of squares. The results indicated that adjustment level produced the strongest difference in risk-taking behaviour, $F(2, 253) = 102.00$, $p < .001$, eta squared = 0.446. Teachers with low adjustment recorded the highest mean risk-taking score, whereas highly adjusted teachers recorded the lowest. Male, urban, and private-school teachers showed higher overall scores than their respective comparison groups. The adjustment-by-gender interaction was significant, while adjustment-by-locale and adjustment-by-organizational-setup interactions were not significant. The findings indicate that generalized risk propensity is best interpreted as a context-sensitive professional characteristic rather than an inherently desirable or undesirable trait. The findings support policies that strengthen teacher adjustment, psychological safety, reflective decision-making, mentoring, and responsible innovation while avoiding punitive cultures that intensify uncontrolled or defensive risk responses.

Keywords: risk-taking behaviour; teacher adjustment; gender; rural-urban locale; government and private schools; educational innovation

1. INTRODUCTION

1.1 Background and Context

Teaching requires continuous judgement under conditions that are rarely fully predictable. School teachers select instructional strategies, respond to diverse learners, manage classroom behaviour, adopt technologies, interpret policy expectations, and make rapid decisions whose outcomes may remain uncertain. These activities involve professional risk because a new method can fail, a classroom intervention can be questioned, or a decision can produce unintended consequences. Risk-taking behaviour therefore has educational significance when it reflects the willingness to act despite uncertainty, but its value depends on whether the action is informed, proportionate, and consistent with professional responsibility. Teacher risk-taking should not be equated with recklessness. It can support experimentation and innovation, yet excessive or poorly regulated risk propensity may weaken judgement, consistency, and institutional trust (Ponticell, 2003; Le Fevre, 2014).

The importance of responsible teacher risk-taking has increased as schools confront digital transformation, curricular reform, inclusion, and demands for creativity. International evidence shows

that schools increasingly expect teachers to cooperate in implementing new ideas. Across the education systems participating in TALIS 2018, 78% of teachers reported that colleagues helped one another to implement new ideas, indicating that innovation has become a collective rather than purely individual responsibility (OECD, 2019a). At the same time, teacher shortages place pressure on systems to retain capable professionals. Earlier international projections indicated that almost 69 million additional primary and secondary teachers would be needed globally by 2030 to achieve universal education goals (UNESCO Institute for Statistics, 2016). These conditions make it necessary to understand psychological characteristics that influence adaptation, decision-making, and willingness to engage with change.

Adjustment is a central concept in this relationship because it represents the teacher's capacity to maintain functional balance across personal, social, emotional, and professional demands. A well-adjusted teacher is not necessarily risk-averse; rather, such a teacher is more likely to evaluate uncertainty, regulate emotion, use available support, and select a proportionate response. A poorly adjusted teacher may avoid all uncertain action because of fear, or may take poorly considered risks as a reaction to frustration, pressure, or weak self-regulation. Theoretical and empirical work on educational change shows that perceptions of loss, vulnerability, public failure, and control shape teachers' willingness to alter practice (Ponticell, 2003; Le Fevre, 2014). Phenomenological evidence has further shown that teachers experience risk through readiness, identity, uncertainty, and the movement between familiar and innovative pedagogies (Howard et al., 2018).

Risk-taking behaviour may also vary across gender, locale, and organizational setup. General psychological research has frequently found higher average risk-taking among males, although the size and direction of the difference depend on the domain and social context (Byrnes et al., 1999). Rural and urban teachers may encounter different resource conditions, monitoring systems, community expectations, and exposure to professional networks. Government and private schools may differ in job security, accountability, autonomy, workload, and managerial control. Indian adjustment studies have reported inconsistent sectoral and locality patterns, suggesting that teacher characteristics cannot be interpreted independently of institutional context (Kumar, 2019; Moshahid, 2017; Pathak, 2017). A comparative design that examines risk-taking at different adjustment levels and across these demographic and organizational categories can therefore provide a more precise account of teacher behaviour.

1.2 Literature Gap

Prior research has examined teacher risk-taking in relation to pedagogical change, technology adoption, innovation, efficacy, and school culture. Separate studies have compared teacher adjustment by gender, locale, or school type. However, limited evidence has tested whether teachers' generalized risk-taking behaviour differs systematically across low, average, and high adjustment levels while simultaneously considering gender, rural-urban locale, and government-private organizational setup. The literature also tends to treat pedagogical risk and general risk propensity as interchangeable, although they are conceptually distinct. A structured comparative study using established measures can clarify this relationship and identify whether demographic differences remain consistent across adjustment levels.

1.3 Problem Statement

School teachers are expected to innovate, exercise autonomy, and respond flexibly to complex classroom situations. Yet every departure from routine introduces uncertainty concerning student response, managerial evaluation, parental reaction, workload, and professional reputation. A teacher who avoids all risk may rely on rigid practices and resist useful change, whereas a teacher with uncontrolled risk propensity may make decisions without adequate evidence or consideration of consequences. The practical problem is therefore not whether teachers should take risks, but whether

their risk-taking behaviour is associated with the psychological capacity to adjust effectively to professional demands.

Current evidence does not adequately explain how adjustment level structures risk-taking behaviour across different categories of school teachers. Gender, rural-urban location, and organizational setup may shape both perceived uncertainty and the consequences attached to professional decisions. Without comparative evidence, school leaders may treat risk-taking as a stable personal trait or reward visible innovation without considering emotional regulation, contextual support, and adjustment. The study addresses this problem by comparing risk-taking scores among teachers at different adjustment levels and determining whether the pattern varies by gender, locale, and organizational setup. The analysis distinguished broad group tendencies from interaction effects and supported policies that promote responsible, evidence-informed professional initiative.

1.4 Purpose and Objectives

The purpose of the study was to examine risk-taking behaviour among school teachers at different levels of adjustment and to determine whether the observed differences varied across gender, locale, and organizational setup. The specific objectives were: (1) to study the risk-taking behaviour of school teachers; (2) to compare risk-taking behaviour with reference to gender, rural-urban locale, and government-private organizational setup; (3) to compare risk-taking behaviour among teachers with low, average, and high adjustment; and (4) to examine gender, locale, and organizational differences in risk-taking behaviour within and across adjustment levels.

1.5 Significance of the Study

The study contributes to the conceptual understanding of teacher risk-taking by positioning adjustment as a regulating psychological condition. Educational literature commonly presents risk-taking as necessary for creativity and change, while psychological instruments often measure generalized willingness to engage in uncertain activities. Examining the two perspectives together discourages simplistic conclusions. A higher score may indicate confidence and openness, but it may also reflect impulsivity or reduced sensitivity to consequences. Adjustment-based comparison provides a basis for distinguishing potentially constructive risk orientation from risk propensity that may emerge under imbalance or strain.

The study has practical value for school leadership and teacher development. Group means can identify whether teachers with low adjustment require support in emotional regulation, decision-making, and problem appraisal. Significant gender or organizational differences can guide targeted mentoring without assuming that every member of a group has the same needs. Schools can use the findings to design psychologically safe professional-learning environments in which teachers test new practices through pilot implementation, peer observation, evidence review, and structured reflection. Such arrangements reduce the cost of failure while preserving professional initiative.

The findings also have policy relevance. Systems that demand innovation without providing autonomy, resources, trust, and recovery support may increase perceived risk and discourage meaningful change. Conversely, uncritical celebration of experimentation may transfer institutional risk to individual teachers. Evidence on adjustment and subgroup differences can inform teacher-well-being policies, induction programmes, school-leadership standards, and professional-development frameworks. It may also assist government and private school administrators in balancing accountability with discretion. By identifying the strongest sources of variation and reporting effect sizes rather than p-values alone, the study supports proportionate intervention and provides a replicable framework for future research in comparable teacher populations.

2. LITERATURE REVIEW

This literature review critically analyses scholarly work under four themes aligned with the study objectives: the conceptual development of teacher risk-taking; risk-taking in pedagogical innovation and technology adoption; adjustment as a psychological and professional resource; and differences associated with gender, locale, and organizational setup. The thematic organization traces how the field has progressed from case-based descriptions of teacher vulnerability to quantitative models of school support, self-efficacy, innovation, and adjustment.

2.1 Conceptual Development of Teacher Risk-Taking

Early empirical work established that teacher risk-taking involves more than a simple preference for danger. In a case study of a school-within-a-school programme for students at risk of dropping out, Ponticell (2003) applied a psychological framework based on loss, significance of loss, and uncertainty. The analysis showed that these elements helped explain teacher decisions, but emotion, expected gain, social interaction, organizational processes, and collective values also influenced behaviour. The study's implication was that risk-taking is partly social and institutional. Teachers may accept uncertainty when colleagues and leaders share responsibility, whereas the same action may appear unacceptable when failure is individualized.

The role of perceived vulnerability became clearer in a qualitative study of pedagogical change. Le Fevre (2014) examined teachers participating in a literacy professional-learning initiative and found that 11 of 12 participants regarded de-privatizing practice, reducing textbook dependence, and increasing student voice as high-risk actions. Fear of public failure and loss of classroom control prevented implementation even when teachers expressed support for change. The study reframed apparent resistance as a rational response to perceived uncertainty and demonstrated that professional learning must reduce avoidable risk while building capacity to manage unavoidable risk.

A phenomenological approach later expanded the meaning of teacher risk. Howard et al. (2018) studied six Canadian teachers and interpreted risk-taking through themes of readiness, pedagogical in-between spaces, and exploratory practice. Risk was experienced as personal and relational because changing pedagogy exposed teachers' identities and assumptions. The study suggested that teacher development should not merely instruct teachers to innovate; it should provide time, trust, and reflective dialogue through which uncertainty can be understood. This insight is directly relevant to adjustment because emotional and professional balance may influence whether uncertainty becomes manageable challenge or destabilizing threat.

Research with experienced mathematics teachers has also linked intellectual risk-taking with emotion and classroom practice. Lake (2019) examined affective episodes in mathematics teaching and found that teacher risk-taking and the use of positive emotions could reinforce one another; modelling such behaviours was presented as potentially beneficial for student learning. The implication was that professional risk-taking is situated and affective rather than a fixed disposition. This strengthens the case for examining personal adjustment rather than treating all teachers as equally prepared for uncertainty.

2.2 Risk-Taking, Innovation, Technology, and School Support

Quantitative research has linked risk-taking with school culture and professional efficacy. Taylor (2010) administered a five-section survey to 740 public and private teachers from 53 schools across nine Midwestern states and analysed the data through correlations, analysis of variance, hierarchical regression, and hierarchical linear modelling. Teachers' perceptions of a supportive environment and their efficacy were positively associated with risk-taking at individual and school levels. Average teaching experience at school level was inversely associated with risk, indicating that established routines may reduce experimentation. The study demonstrated that risk behaviour cannot be explained

by demographic characteristics alone because organizational climate and efficacy shape whether teachers act on uncertain opportunities.

Technology research has provided an applied test of this relationship. Offir and Katz (1990) administered risk-taking and computer-attitude questionnaires to Israeli elementary teachers. High risk-takers showed more positive attitudes toward computer-assisted instruction than medium risk-takers, who were more positive than low risk-takers. The finding implied that willingness to use unfamiliar technology was partly associated with general risk orientation. However, a positive attitude did not establish effective or responsible use, highlighting the importance of adjustment, competence, and support in converting willingness into sound practice.

Demirbağ and Kılınç (2018) used a more detailed belief-system approach and surveyed 425 Turkish preservice teachers and applied factor analysis and hierarchical regression. Six dimensions of perceived risk were identified in relation to educational technologies, and these perceptions predicted willingness to use technology. The study showed that risk is multidimensional: teachers can perceive technical, pedagogical, social, and value-related consequences differently. Its implication for the present study is that a generalized risk-taking score should be interpreted as a broad propensity rather than a direct measure of technology adoption or instructional innovation.

Research on organizational and motivational resources has shown that teacher innovation does not operate independently of context. Thurlings et al. (2015) reviewed the literature on teachers' innovative behaviour and identified individual and organizational factors that influence the generation, promotion, and implementation of new ideas. Their synthesis emphasized that innovative behaviour develops within a work environment rather than from personal willingness alone. Adjustment may help teachers use available resources effectively and maintain initiative when uncertainty or institutional constraints are present.

The relationship between professional resources and innovativeness has also been tested quantitatively. Klaijsen et al. (2018) analysed online survey data from 2,385 teachers in primary, secondary, and vocational education using structural equation modelling. Basic psychological need satisfaction supported intrinsic motivation and occupational self-efficacy, and occupational self-efficacy strongly supported innovative behaviour. In classroom reform, Radloff et al. (2019) used interviews, observations, and reflections to examine three generations of elementary teachers implementing engineering-design science. The study identified practical, pedagogical, conceptual, and personal risks and reported gains in student engagement, teacher confidence, and collaboration. Together, these studies show that constructive risk-taking can support innovation when competence, reflection, and social support are present.

2.3 Teacher Adjustment as a Psychological and Professional Resource

Teacher adjustment research has generally treated adjustment as the capacity to function effectively across professional, social, emotional, and personal domains. Using stratified random sampling, Moshahid (2017) compared 105 government and private secondary-school teachers through the Mangal Teacher Adjustment Inventory, mean scores, standard deviations, and t-tests. Government teachers showed better overall adjustment than private teachers, while gender differences varied by sector. The study demonstrated that organizational conditions may interact with personal characteristics rather than producing a uniform sector effect.

Locale-based evidence has likewise been inconsistent. Kumar (2019) studied 60 teachers from rural and urban schools in Rewari district, with balanced male and female groups, and used the Mangal inventory. Significant differences were found between rural and urban teachers and between gender categories. The findings suggested that location may represent differences in resources, community relations, travel, professional exposure, and role expectations rather than geography alone. This

supports the present study's decision to examine locale within adjustment levels instead of interpreting rural-urban status as an isolated cause.

Earlier comparative studies produced different adjustment patterns across school contexts. Pathak (2017) examined 100 government and private school teachers and found no significant adjustment differences by school status or gender. Beri (2015) similarly studied 100 secondary-school teachers in Jalandhar using the Mangal Teacher Adjustment Inventory and found no significant differences in professional adjustment by sector or gender. These findings contrast with Moshahid (2017), who reported better overall adjustment among government secondary-school teachers, underscoring the need to interpret sector and gender effects within specific institutional contexts.

Earlier evidence also showed conditional gender patterns. Moshahid (2017) reported no significant gender difference in adjustment among government secondary-school teachers, whereas private female teachers were significantly better adjusted than private male teachers. Adjustment is therefore not merely an individual disposition; it develops within employment conditions, role demands, and available support. These findings justify its use as the principal grouping variable in the present research.

2.4 Gender, Locale, and Organizational Variation in Risk Behaviour

Gender differences in risk-taking have been documented across many domains but remain context-dependent. Byrnes et al. (1999) conducted a meta-analysis of 150 studies and found higher male risk-taking in 14 of 16 categories, although effect sizes varied with age, task, and context. In a smaller experimental study, Killgore et al. (2010) compared 29 men and 25 women on a self-reported risk-propensity scale and found higher male scores for danger seeking, energy, invincibility, and total propensity. These findings support testing gender differences, but they do not justify interpreting every observed difference as biological or universal. Professional norms, opportunity, social sanction, and organizational role can alter how risk is expressed.

School location and organizational setup can similarly change the consequences of uncertain decisions. Rural teachers may operate with fewer material resources and closer community visibility, while urban teachers may encounter greater technological exposure, competition, and administrative complexity. Government employment may provide security and formal procedure, whereas private employment may combine flexibility with performance pressure and managerial surveillance. The studies of (Moshahid, 2017), (Kumar, 2019), and (Pathak, 2017) produced different adjustment patterns across these categories, indicating that contextual effects are likely to be local and interactive. Consequently, the present study tests both overall group differences and adjustment-based interaction effects.

Large-scale policy evidence reinforces the importance of context. OECD (2019a) reported that 78% of teachers across participating systems perceived collegial assistance in implementing new ideas, but innovation varied across systems and teacher groups. The finding implies that willingness to act is partly embedded in collective routines. The literature therefore supports a comparative model in which adjustment is the principal psychological condition and gender, locale, and organizational setup are contextual grouping variables. What remains underexplored is whether these group differences persist equally among low-, average-, and high-adjustment teachers.

2.5 Identification of Literature Gap and Significance

Existing studies have explained teacher risk-taking through innovation, perceived vulnerability, efficacy, technology acceptance, and school support, while adjustment studies have compared teachers by gender, locale, and school sector. Limited research has integrated these strands by testing generalized risk-taking behaviour across distinct adjustment levels in one proportionately stratified teacher sample. Evidence is also scarce on whether gender, rural-urban, and government-private

differences change as adjustment improves. Addressing this gap is significant because it separates broad risk propensity from pedagogical innovation, identifies the strongest source of variation, and supports differentiated teacher-development policies rather than uniform assumptions about demographic groups.

3. RESEARCH METHODOLOGY

The study used a quantitative, cross-sectional, descriptive-comparative survey design. The unit of analysis was the individual school teacher. The design was selected because the objectives required measurement of existing risk-taking and adjustment scores without manipulating school conditions. The study compared naturally occurring groups and tested whether adjustment level and demographic-organizational categories were associated with differences in mean risk-taking behaviour.

The target population comprised teachers working in recognized government and private secondary schools in Punjab. Data were collected in Ludhiana, Jalandhar, Hoshiarpur, and Gurdaspur districts, representing different parts of the state. Multistage proportionate stratified random sampling was used. Schools were first classified by district, rural-urban location, and government-private status. Participating schools were then randomly selected within strata, followed by the selection of eligible teachers from staff lists. The final sample comprised 256 teachers.

Only one source of data was used: primary responses collected directly from school teachers through a structured paper questionnaire schedule. The schedule contained a demographic form, the Risk Taking Questionnaire developed by Sinha and Arora, and the short form of the Mangal Teacher Adjustment Inventory. The Risk Taking Questionnaire contained 40 items covering eight areas and used five response alternatives. The total score was treated as a generalized risk-taking measure, with higher scores indicating greater willingness to engage in uncertain activities. The adjustment inventory assessed the teacher's overall personal and professional adjustment; higher scores indicated better adjustment.

Data collection was conducted after institutional permission and informed consent. Participation was voluntary, questionnaires were anonymous, and completed schedules were returned in sealed envelopes. Forms with more than 10% missing responses on either study measure were excluded. For isolated missing items within the permitted limit, the respondent's scale mean was substituted only when the relevant manual allowed complete-score estimation; otherwise, the case was excluded from the corresponding analysis. The final analysis retained 256 complete records.

IBM SPSS Statistics 26 was the single data-analysis tool. Descriptive statistics summarized the measures and sample. Cronbach's alpha assessed internal consistency in the study sample. Independent-samples t-tests compared two-category groups, one-way analysis of variance compared adjustment levels, and Tukey's honestly significant difference test identified pairwise differences. A factorial analysis of variance tested the main effects of adjustment, gender, locale, and organizational setup and the interactions between adjustment and each grouping variable. Cohen's d, eta squared, partial eta squared, and 95% confidence intervals were reported to distinguish statistical from practical importance. The significance level was fixed at .05, and two-tailed tests were used.

Table 1. Primary-data source and collection protocol

Element	Specification
Data source	Primary responses obtained directly from school teachers; no secondary dataset was combined with the survey.
Study setting	Recognized government and private secondary schools in Ludhiana, Jalandhar, Hoshiarpur, and Gurdaspur districts of Punjab.
Unit of analysis	An individual school teacher employed at the participating school during the field period.
Sampling Method	Multistage proportionate stratified random sampling by district, locale, organizational setup, and gender.
Sample	256 teachers: 113 male and 143 female; 119 rural and 137 urban; 146 government and 110

Element	Specification
	private-school teachers.
Eligibility	Currently teaching at secondary-school level; minimum six months in the present school; able to complete the instrument independently.
Exclusion	Administrative staff without regular teaching responsibility; substitute teachers with less than six months' service; substantially incomplete questionnaires.
Risk measure	Risk Taking Questionnaire, Sinha and Arora (1983): 40 items, eight areas, five response alternatives; higher total score = higher generalized risk-taking.
Adjustment measure	Mangal Teacher Adjustment Inventory, short form; higher score = better adjustment; respondents classified as low, average, or high adjustment.
Administration	Paper questionnaire completed individually in a quiet school space; approximately 30-40 minutes; anonymous sealed return.
Ethical safeguards	School permission, informed consent, voluntary participation, confidentiality, no personal identifiers, and right to withdraw before submission.
Analysis tool	IBM SPSS Statistics 26 only.
Analyses	Frequencies, mean, SD, Cronbach's alpha, independent t-test, one-way ANOVA, Tukey HSD, factorial ANOVA, Cohen's d, eta squared, and partial eta squared.

NULL HYPOTHESES

H01: There is no significant difference in the mean risk-taking behaviour scores of male and female school teachers.

H02: There is no significant difference in the mean risk-taking behaviour scores of rural and urban school teachers.

H03: There is no significant difference in the mean risk-taking behaviour scores of government and private school teachers.

H04: There is no significant difference in the mean risk-taking behaviour scores of school teachers at low, average, and high levels of adjustment.

H04a: The difference in risk-taking behaviour across adjustment levels does not vary significantly by gender.

H04b: The difference in risk-taking behaviour across adjustment levels does not vary significantly by locale.

H04c: The difference in risk-taking behaviour across adjustment levels does not vary significantly by organizational setup.

4. RESULTS AND ANALYSIS

The results are presented in relation to the stated objectives and hypotheses. Descriptive and inferential statistics were used to examine differences in risk-taking behaviour across adjustment levels and the selected demographic and organizational categories.

Table 2. Distribution of the sample (N = 256)

Characteristic	Category	n	%
Gender	Male	113	44.1
Gender	Female	143	55.9
Locale	Rural	119	46.5
Locale	Urban	137	53.5
Organizational setup	Government	146	57.0
Organizational setup	Private	110	43.0
Adjustment level	Low	62	24.2
Adjustment level	Average	119	46.5
Adjustment level	High	75	29.3

Note. Percentages are based on the total sample.

The sample showed variation across the three principal comparison variables rather than equal allocation. Female teachers represented 55.9% of the sample and male teachers 44.1%; urban teachers represented 53.5% and rural teachers 46.5%; government-school teachers represented 57.0% and private-school teachers 43.0%. Adjustment was also unevenly distributed: 24.2% of teachers were classified as low adjustment, 46.5% as average adjustment, and 29.3% as high adjustment. The eight gender-by-locale-by-organization profile cells ranged from 21 to 41 teachers, providing usable but non-identical subgroup sizes.

Table 3. Descriptive statistics and internal consistency of study measures

Measure	Items	Possible range	Observed range	M	SD	Cronbach's alpha
Risk Taking Questionnaire	40	40-200	93-173	134.91	15.40	.88
Teacher Adjustment Inventory	70	0-70	29-70	53.41	10.06	.86

Note. Higher Risk Taking Questionnaire scores indicate greater generalized risk propensity. Higher adjustment scores indicate better teacher adjustment.

Both measures displayed adequate dispersion and acceptable internal consistency. The mean risk-taking score was 134.91 (SD = 15.40), with an observed range of 93-173 within the possible 40-200 range. The distribution therefore retained sufficient variability for group comparison without severe floor or ceiling concentration. Cronbach's alpha of .88 indicated satisfactory internal consistency for the 40-item measure. The adjustment inventory yielded a mean of 53.41 (SD = 10.06), an observed range of 29-70, and an alpha of .86. These coefficients supported the use of composite scores for the subsequent group-level analyses, although they did not independently establish factorial validity or measurement equivalence across gender, locale, and organizational groups.

Table 4. Risk-taking category by level of teacher adjustment

Adjustment level	Low risk n (%)	Moderate risk n (%)	High risk n (%)	Total
Low adjustment	0 (0.0)	3 (4.8)	59 (95.2)	62
Average adjustment	3 (2.5)	53 (44.5)	63 (52.9)	119
High adjustment	14 (18.7)	55 (73.3)	6 (8.0)	75
Total	17 (6.6)	111 (43.4)	128 (50.0)	256

Note. For analytical interpretation, RTQ totals of 40-111 were classified as low, 112-135 as moderate, and 136-200 as high risk-taking. These score bands were applied consistently across all comparison groups.

The cross-classification showed a pronounced shift in risk-taking as adjustment improved. Among low-adjustment teachers, 59 of 62, or 95.2%, were classified in the high-risk band. In the average-adjustment group, 52.9% were high risk and 44.5% were moderate. Among highly adjusted teachers, 73.3% were moderate, 18.7% were low risk, and only 8.0% were high risk. The ordered distribution supports a graded association between adjustment and generalized risk propensity. It does not imply that every high score is professionally harmful, because the instrument does not assess the quality, ethics, or educational outcome of a specific decision.

Table 5. Risk-taking behaviour across adjustment levels

Level	n	M	SD	95% CI for M	F(2, 253)	p	Eta squared
Low	62	148.87	10.10	[146.31, 151.44]	102.00	< .001	0.446
Average	119	136.43	12.02	[134.25, 138.61]			
High	75	120.95	11.74	[118.25, 123.65]			

Note. One-way ANOVA compared the three adjustment groups. Eta squared represents the proportion of total risk-score variance associated with adjustment level.

Adjustment level was the strongest source of variation in the analysis. Low-adjustment teachers recorded the highest mean risk-taking score ($M = 148.87$), average-adjustment teachers occupied an intermediate position ($M = 136.43$), and highly adjusted teachers recorded the lowest mean ($M = 120.95$). The overall difference was statistically significant, $F(2, 253) = 102.00$, $p < .001$. Eta squared of 0.446 indicated that approximately 44.6% of total variation in risk-taking scores was associated with adjustment-group membership, a large effect. The confidence intervals were distinct across the three groups, and H_{04} was rejected. The finding remains associational because adjustment and risk-taking were measured concurrently; longitudinal evidence would be required to establish temporal direction.

Table 6. Tukey HSD pairwise comparisons between adjustment levels

Comparison	Mean difference	SE	95% CI	p	Decision
Low - Average	12.44	1.27	[8.20, 16.69]	< .001	Significant
Low - High	27.92	1.40	[23.27, 32.58]	< .001	Significant
Average - High	15.48	1.20	[11.48, 19.48]	< .001	Significant

Note. Positive differences indicate that the first-listed adjustment group had a higher mean risk-taking score. Family-wise error was controlled through Tukey HSD.

Post hoc analysis showed that every adjustment group differed significantly from the others. Low-adjustment teachers scored 12.44 points higher than average-adjustment teachers and 27.92 points higher than high-adjustment teachers. Average-adjustment teachers exceeded the high-adjustment group by 15.48 points. The pairwise confidence intervals excluded zero after Tukey correction, indicating that the omnibus effect was not driven by only one extreme comparison. The ordered differences suggest a progressive decline in generalized risk propensity as adjustment improves. This pattern supports differentiated support: intensive assistance may be appropriate for low-adjustment teachers, whereas preventive reflective-decision programmes may benefit the average-adjustment group. The categories remain descriptive and should not be treated as clinical classifications.

Table 7. Gender differences in risk-taking behaviour overall and within adjustment levels

Level	Male n	Male (SD)	Female n	Female (SD)	t(df)	p	Cohen's d
Overall	113	137.14 (17.06)	143	133.14 (13.75)	2.08 (254)	.039	.26
Low adjustment	27	153.41 (10.94)	35	145.37 (7.91)	3.36 (60)	.001	.86
Average adjustment	51	140.47 (12.41)	68	133.40 (10.85)	3.31 (117)	.001	.61
High adjustment	35	119.74 (10.12)	40	122.00 (13.03)	-0.83 (73)	.410	-.19

Note. Positive d values indicate higher male means. Equal-variance t-tests are shown for the data.

Male teachers recorded a higher overall mean than female teachers, $t(254) = 2.08$, $p = 0.039$, $d = 0.26$. The overall effect was small, but the adjustment-specific pattern was more informative. Male means were significantly higher in the low-adjustment group, $d = 0.86$, and in the average-adjustment group, $d = 0.61$. In the high-adjustment group, the difference reversed slightly and was nonsignificant, $d = -0.19$. H_{01} was rejected, and the factorial model confirmed a significant adjustment-by-gender interaction. The result suggests that adjustment narrows the gender difference rather than supporting a fixed demographic interpretation. Social expectations, professional opportunities, perceived sanctions, and emotional regulation may influence self-reported risk propensity, and these mechanisms require direct measurement in future research.

Table 8. Locale differences in risk-taking behaviour overall and within adjustment levels

Level	Urban n	Urban M (SD)	Rural n	Rural M (SD)	t(df)	p	Cohen's d
Overall	137	137.80 (14.36)	119	131.58 (15.93)	3.28 (254)	.001	.41
Low adjustment	33	149.48 (10.04)	29	148.17 (10.30)	0.51 (60)	.614	.13
Average adjustment	62	140.29 (11.55)	57	132.23 (11.16)	3.87 (117)	< .001	.71
High adjustment	42	124.93 (10.87)	33	115.88 (10.95)	3.57 (73)	< .001	.83

Note. Positive *d* values indicate higher urban means. Rural-urban classification refers to the location of the employing school.

Urban teachers showed a higher overall mean than rural teachers, $t(254) = 3.28$, $p = 0.001$, $d = 0.41$; therefore, H_{02} was rejected. The low-adjustment comparison was nonsignificant, whereas urban teachers scored significantly higher in both the average- and high-adjustment groups. Despite these subgroup differences, the formal adjustment-by-locale interaction did not reach significance, $F(2, 244) = 2.80$, $p = 0.063$. The appropriate conclusion is that locale produced an overall contextual difference, but the available evidence was insufficient to establish that its magnitude changed systematically across adjustment levels. Policy interpretation should focus on access to technology, professional networks, resource conditions, and institutional expectations rather than assumptions about rural or urban teacher capability.

Table 9. Organizational-setup differences overall and within adjustment levels

Level	Private n	Private M (SD)	Govt. n	Govt. M (SD)	t(df)	p	Cohen's d
Overall	110	138.25 (14.21)	146	132.39 (15.82)	3.06 (254)	.002	.39
Low adjustment	32	150.16 (9.19)	30	147.50 (10.98)	1.04 (60)	.305	.26
Average adjustment	50	137.36 (11.61)	69	135.75 (12.35)	0.72 (117)	.474	.13
High adjustment	28	126.21 (12.40)	47	117.81 (10.21)	3.18 (73)	.002	.76

Note. Positive *d* values indicate higher private-school means. Organizational setup refers to the teacher's employing school.

Private-school teachers obtained a higher overall mean than government-school teachers, $t(254) = 3.06$, $p = 0.002$, $d = 0.39$, and H_{03} was rejected. Within adjustment strata, the private-government difference was nonsignificant in the low- and average-adjustment groups but significant in the high-adjustment group, where $d = 0.76$. The factorial main effect of organizational setup remained significant after adjustment for unequal cells, while the adjustment-by-organization interaction was nonsignificant. This pattern indicates a modest sector difference that should not be interpreted as a uniform gap at every adjustment level. Employment security, performance pressure, managerial flexibility, autonomy, and selection into sectors may contribute to the observed means. School-level clustering and direct measures of organizational climate should be included in future analysis.

Table 10. Factorial ANOVA for risk-taking behaviour

Effect	df	F	p	Partial eta squared	Interpretation
Adjustment level	2	119.45	< .001	0.495	Large main effect

Effect	df	F	p	Partial eta squared	Interpretation
Gender	1	11.41	< .001	0.045	Small main effect
Locale	1	19.64	< .001	0.074	Small-to-moderate main effect
Organizational setup	1	8.06	.005	0.032	Small main effect
Adjustment x Gender	2	5.80	.003	0.045	Significant interaction
Adjustment x Locale	2	2.80	.063	0.022	Nonsignificant interaction
Adjustment x Organization	2	2.14	.119	0.017	Nonsignificant interaction
Error	244				
Model	11	29.23	< .001	R ² = 0.569	Adjusted R ² = 0.549

Note. The model included the main effects and the three interactions specified by the objectives. Partial eta squared is reported for individual effects; R squared describes total explained variance.

The Type III factorial model explained 56.9% of the variance in risk-taking behaviour (adjusted R² = 0.549). Adjustment produced the largest unique effect, partial eta squared = 0.495. Gender, locale, and organizational setup produced smaller but statistically significant main effects. The adjustment-by-gender interaction was significant, $F(2, 244) = 5.80$, $p = 0.003$; H04a was rejected. Adjustment-by-locale and adjustment-by-organization were nonsignificant, so H04b and H04c were retained. This distinction prevents isolated subgroup t-tests from being misread as evidence of moderation. The model explained a substantial proportion of variance, but age, experience, subject taught, school climate, autonomy, efficacy, personality, and perceived consequences may account for additional variation.

Table 11. Combined gender-locale-organizational profiles

Gender	Locale	Sector	n	M	SD	Rank
Female	Rural	Government	39	126.87	15.07	8
Female	Rural	Private	25	133.08	11.91	6
Female	Urban	Government	41	133.10	12.71	5
Female	Urban	Private	38	139.66	11.84	3
Male	Rural	Government	34	130.91	17.51	7
Male	Rural	Private	21	139.62	16.55	4
Male	Urban	Government	32	139.78	16.11	2
Male	Urban	Private	26	140.04	16.82	1

Note. Ranks are based on descending group means and are descriptive. No separate three-way interaction was specified in the principal model.

The combined profiles illustrate the unequal but usable cell distribution and show why single demographic comparisons require caution. Male urban private-school teachers recorded the highest descriptive mean, while female rural government-school teachers recorded the lowest. The middle-ranked profiles were closely clustered: male urban government, female urban private, and male rural private teachers differed by less than one point. The profile ordering therefore should not be treated as a hierarchy of teacher quality or innovation. It reflects the joint distribution of demographic and organizational conditions and remains descriptive because no three-way interaction was specified. The smallest profile contained 21 teachers and the largest contained 41, so a larger school-clustered sample would be required for stable higher-order interaction estimates.

Table 12. Decisions on the null hypotheses

Hypothesis	Statistical evidence	Decision	Substantive conclusion
H01: Gender difference	$t(254) = 2.08$, $p = 0.039$, $d = 0.26$	Rejected	Male teachers had a higher overall mean; the effect was small.
H02: Locale difference	$t(254) = 3.28$, $p =$	Rejected	Urban teachers had a higher overall mean; the

Hypothesis	Statistical evidence	Decision	Substantive conclusion
	0.001, $d = 0.41$		effect was small.
H03: Organizational difference	$t(254) = 3.06$, $p = 0.002$, $d = 0.39$	Rejected	Private-school teachers had a higher overall mean; the effect was small.
H04: Adjustment-level difference	$F(2, 253) = 102.00$, $p < .001$, $\eta^2 = 0.446$	Rejected	Risk-taking declined progressively from low to high adjustment.
H04a: Adjustment x Gender	$F(2, 244) = 5.80$, $p = 0.003$	Rejected	Gender differences varied significantly across adjustment levels.
H04b: Adjustment x Locale	$F(2, 244) = 2.80$, $p = 0.063$	Retained	No reliable evidence that the locale difference changed across adjustment levels.
H04c: Adjustment x Organization	$F(2, 244) = 2.14$, $p = 0.119$	Retained	No reliable evidence that the sector difference changed across adjustment levels.

Note. “Retained” means that the analysis did not provide sufficient evidence to reject the null hypothesis; it does not prove equality.

The hypothesis summary confirms that adjustment level was the most consequential source of variation. H01, H02, H03, and H04 were rejected, although the demographic-organizational effects were smaller than the adjustment effect. The interaction results refined this conclusion: only the gender difference changed significantly across adjustment levels, becoming nonsignificant and slightly reversed among highly adjusted teachers. The adjustment-by-locale and adjustment-by-organization hypotheses were retained because the interaction tests exceeded .05. Main effects answer whether groups differ on average, whereas interactions answer whether a group difference depends on adjustment. Reporting both is especially important with unequal group sizes and prevents overstatement based on isolated subgroup comparisons.

5. DISCUSSION AND POLICY IMPLICATIONS

The findings indicated a clear inverse relationship between teacher adjustment and generalized risk-taking behaviour. Teachers with low adjustment had the highest mean score, average-adjustment teachers occupied an intermediate position, and highly adjusted teachers had the lowest score. Adjustment accounted for 44.6% of total variation in the one-way analysis and remained the largest unique effect in the factorial model. The result suggests that the capacity to maintain emotional, social, and professional balance is closely connected with responses to uncertainty. Strong adjustment may promote appraisal and regulation, while poor adjustment may be associated with less controlled willingness to accept uncertain outcomes. The finding does not support minimizing all professional risk; it distinguishes regulated experimentation from generalized risk propensity.

This interpretation is consistent with the conceptual work of Ponticell (2003), who showed that teacher risk-taking is shaped by perceived loss, uncertainty, emotion, social interaction, and organizational values. It also aligns with Le Fevre’s (2014) finding that vulnerability and fear of public failure influence whether teachers act during pedagogical change. The present pattern extends these studies by proposing adjustment as a measurable psychological condition associated with risk propensity. A highly adjusted teacher may still undertake pedagogical risk when evidence, support, and expected benefit justify action, but may be less likely to accept generalized uncertainty without evaluation. Because the Risk Taking Questionnaire is not a direct measure of classroom innovation, the result should not be interpreted as evidence that highly adjusted teachers are less creative.

The overall male mean exceeded the female mean, supporting the broad direction reported by Byrnes et al. (1999) and Killgore et al. (2010). The interaction analysis showed that the difference was concentrated among low- and average-adjustment teachers and disappeared, with a slight reversal, among highly adjusted teachers. This pattern challenges a fixed-trait interpretation and suggests that

adjustment may reduce differences associated with socialization, occupational exposure, perceived sanctions, or emotion regulation. H01 and H04a were rejected, but the practical conclusion is not that one gender should be encouraged to imitate the other. Teacher-development programmes should strengthen decision quality, reflection, and psychological balance for all teachers while recognizing differentiated support needs.

Urban teachers showed higher average risk-taking scores than rural teachers, and private-school teachers showed higher scores than government teachers. The adjusted main effects were statistically significant, but their effect sizes were much smaller than the adjustment effect. The adjustment-by-locale and adjustment-by-organization interactions remained nonsignificant, indicating that the overall contextual differences were not shown to change reliably across the full adjustment gradient. These results are compatible with Taylor's (2010) evidence that school environment and efficacy influence teacher risk-taking and with Thurlings et al. (2015), who emphasized individual and organizational influences on teachers' innovative behaviour. The contextual findings should be interpreted through opportunity, technology exposure, professional networks, autonomy, security, and performance pressure rather than demographic or sector stereotypes.

The policy implication is that school systems should promote responsible risk architecture rather than either risk avoidance or unrestricted experimentation. A responsible architecture would define which decisions require approval, which can be piloted by teachers, how evidence will be collected, and how unsuccessful trials will be reviewed without humiliation. Professional learning communities can provide peer feedback before and after implementation. Small pilots, lesson study, action research, and structured observation can reduce uncertainty while retaining autonomy. Such mechanisms respond directly to the risks of public failure and loss of control identified by Le Fevre (2014) and to the relational influences identified by Ponticell (2003).

Adjustment support should be integrated into teacher well-being and professional-development policy. Low-adjustment teachers may benefit from confidential counselling, mentoring, workload review, conflict-resolution support, and training in emotional regulation and evidence-based decision-making. Average-adjustment teachers may require preventive support, especially during policy change, technology adoption, or role transition. Highly adjusted teachers can serve as mentors, but they should not be assigned unlimited emotional labour. Screening should never be used for punitive appraisal or employment exclusion. Adjustment measures are diagnostic research tools, and individual scores require confidentiality, qualified interpretation, and informed consent.

Government and private schools may require different implementation strategies. Government systems can reduce procedural rigidity by creating bounded spaces for teacher-led experimentation and by ensuring that approval processes are timely. Private schools can protect professional judgement from excessive performance pressure and prevent innovation demands from becoming compulsory risk transfer. Rural policy should strengthen digital infrastructure, access to professional networks, and locally relevant experimentation, while urban policy should address overload and competitive pressure. Because the locale and organizational effects were small, interventions should be targeted by school evidence rather than based solely on sector or location.

The study also offers a theoretical contribution by connecting adjustment theory with educational risk and innovation. Existing teacher-risk literature emphasizes uncertainty, vulnerability, identity, efficacy, and organizational support. Adjustment provides a broader regulatory construct that may influence appraisal across these processes. A useful theoretical distinction emerges between generalized risk propensity, perceived pedagogical risk, and responsible professional risk-taking. The first concerns willingness to accept uncertainty across domains; the second concerns the teacher's appraisal of a specific educational action; the third concerns an evidence-informed decision undertaken with ethical safeguards. Future models should measure all three rather than assuming they are equivalent.

Several limitations constrain interpretation. The design was cross-sectional and could not establish causal direction. Both principal measures were self-reports and may have been affected by social desirability, response style, and temporary mood. Teachers were nested within schools, but the analysis treated observations as independent. The use of a general risk questionnaire may not fully represent classroom, technological, or organizational risk. Adjustment categories can also reduce information by converting a continuous score into groups.

Future research should collect longitudinal data before and after major reforms, technology implementation, or professional-development programmes. Multilevel modelling should separate teacher-level and school-level influences, and measurement invariance should be tested across gender, locale, and organizational setup. A teacher-specific responsible-risk scale could distinguish experimentation, ethical judgement, evidence use, and impulsive decision-making. Qualitative interviews should examine why the same score produces different professional actions. Linking risk and adjustment scores with classroom observation, innovation quality, student engagement, absenteeism, and well-being would establish whether a given level of risk propensity is constructive, neutral, or harmful in practice.

CONCLUSION

The study examined risk-taking behaviour among school teachers at different levels of adjustment and compared scores by gender, locale, and organizational setup. The methodology used one primary survey source, established instruments, an unequal proportionately stratified sample of 256 teachers, and a single statistical platform. The findings showed that adjustment was the dominant source of variation: risk-taking scores declined progressively from low to high adjustment. Male, urban, and private-school teachers recorded higher overall means, but these demographic-organizational effects were considerably smaller than the adjustment effect.

The interaction analysis added an important qualification. Gender differences changed significantly across adjustment levels and disappeared among highly adjusted teachers, whereas locale and organizational differences did not vary reliably across the adjustment gradient. The findings support a policy focus on adjustment, psychological safety, and decision quality rather than demographic labelling. Teacher risk-taking should be neither automatically celebrated as innovation nor condemned as irresponsibility. Its educational value depends on context, competence, evidence, ethical safeguards, and the teacher's capacity to regulate uncertainty.

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