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Factors Influencing Attendance and Lateness Among Diploma in Industrial Machining Technology Students: An Action Research Study at a Malaysian Vocational College

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Abstract: Attendance and punctuality are central to Technical and Vocational Education and Training (TVET), where competency is acquired through supervised workshop practice that cannot readily be recovered outside timetabled hours. Persistent lateness in the Diploma in Industrial Machining Technology at a Malaysian vocational college prompted this study, which reports the problem-identification phase of a teacher action research cycle. Its objectives were to identify the factors students associate with their own absence and lateness, and to establish which improvement measures they regard as most likely to help. A five-point Likert-scale questionnaire was administered to 35 students, and the programme's daily attendance records were examined alongside the responses. Data were analysed using frequencies, percentages and mean scores. Travel and commuting conditions recorded the highest mean among the factors examined ($M = 3.06$), followed by late bedtimes ($M = 2.89$), while lack of interest in the subject ($M = 2.00$), peer influence ($M = 2.06$) and lack of motivation ($M = 2.20$) recorded the lowest. No factor reached the high band of the interpretation scale, indicating that lateness in this cohort arises from several moderate pressures acting together rather than from a single dominant cause. Among the measures put to students, a comfortable college environment ($M = 4.09$), family encouragement ($M = 4.06$) and full-attendance rewards ($M = 4.06$) were rated most favourably. Because no intervention was implemented or evaluated in this phase, these ratings express anticipated usefulness rather than demonstrated effect, and provide a basis for the action phase.

Keywords: Action Research, Student Attendance, Punctuality, TVET, Vocational College

1. Introduction

Attendance and punctuality are among the most consistently reported correlates of academic achievement in post-secondary education. Regular attendance gives students continuous access to instruction, to the sequencing of a course, and to the interaction with lecturers and peers through which understanding is negotiated and corrected. Studies across a range of disciplines report a positive association between class attendance and subsequent performance, and there is evidence that this association is at least partly mediated by engagement with formative work rather than by physical presence alone (Lu & Cutumisu, 2022; Lucey & Grydaki, 2023). Persistent absence and lateness therefore reduce not only exposure to content but also the opportunities for feedback that make that content usable.

The consequences of missed contact time are more severe in Technical and Vocational Education and Training (TVET) than in predominantly lecture-based programmes. TVET learning combines theoretical instruction with supervised practice on equipment that students cannot access independently, and competency is assessed against observable performance rather than recall. A student who misses a lecture can read the material; a student who misses a machining session loses a supervised attempt at a psychomotor skill that can only be repeated when the workshop, the machine and the instructor are simultaneously available. Evidence from Malaysian vocational programmes shows that students perform most strongly on precisely those competencies that are acquired through direct hands-on exposure, and comparatively less well on areas delivered more theoretically (Masran et al., 2025), which implies that workshop contact time is not interchangeable with other forms of study.

Internationally, TVET is treated as a principal route into skilled employment, and improving the quality and completion of vocational programmes is an explicit policy objective (UNESCO, 2021; World Bank, International Labour Organization, & UNESCO, 2023). In Malaysia, vocational colleges are accredited against competency-based standards that specify practical exposure and assessed performance (Lembaga Teknologis Malaysia, 2019). Attendance is therefore not only a disciplinary matter but a condition of accreditation compliance, because a student who has not attended cannot have been assessed on the competencies the programme certifies.

Absence and lateness are, however, poorly explained by any single cause. Large-scale evidence indicates that chronic absenteeism among adolescents is associated with individual, family, school and socioeconomic conditions acting together, and that its prevalence varies substantially with national and institutional context (Rahman et al., 2023). Factor-analytic work on university absenteeism similarly recovers several distinct dimensions rather than one, separating student-related from course-related and institutional causes (Triadó-Ivern et al., 2020). Treating attendance problems as evidence of indiscipline alone is thus likely to misdirect the response.

At the individual level, the Theory of Planned Behavior offers a useful account of why intention to attend does not always translate into attendance. Ajzen (1991) proposes that behaviour follows from intention, which is in turn shaped by attitudes towards the behaviour, subjective norms, and perceived behavioural control. Applied to attendance, a student may value the class, believe that lecturers and family expect attendance, and still fail to arrive on time if control over the journey, the morning routine or competing obligations is limited. This is not a peripheral caveat: an empirical test of the model against observed attendance at peer-assisted study sessions found that intention and perceived behavioural control together accounted for only a modest share of the variance in whether students actually attended, and that adding academic motivation did not close the gap (Mergelsberg et al., 2021).

Students' circumstances extend beyond individual dispositions. Bronfenbrenner (1979) characterises development as the product of interaction between nested environmental systems, from the immediate settings of family and institution to the wider social and economic context. On this view, household expectations, the cost and availability of transport, the physical distance between home and college, and the climate of the institution are not background conditions but active influences on daily behaviour. Malaysian evidence on truancy is consistent with this reading, identifying attitude, peer influence, parental and socioeconomic circumstances, and teacher-related factors as co-occurring drivers rather than competing explanations (Yusuf et al., 2023).

Among these environmental conditions, commuting has attracted specific attention because it bears on punctuality more directly than on absence. Research in public schooling reports that the distance students travel is associated with lateness as well as with absenteeism and attainment (Bammou et al., 2024), and quasi-experimental evidence from the United States shows that eligibility for school-provided transport raises attendance and reduces chronic absence, with the largest effects among disadvantaged students (Edwards, 2024). Institution-level work has likewise found that lateness concentrates in early-morning sessions and among students at the beginning of their studies (Ramchander, 2017). Commuting is therefore a plausible structural determinant of tardiness, distinct in kind from motivational explanations.

A second structural influence operates through sleep timing. Adolescents and young adults tend towards a late chronotype, and where institutional start times are early, the misalignment between biological and social timing has measurable educational consequences. A study of Argentinian secondary students found that closer alignment between chronotype and school shift was associated with lower grade retention, with the disadvantage to late chronotypes diminishing as start times moved later (Rodríguez Ferrante et al., 2023). Late bedtimes are commonly reported by students as a reason for arriving late; this literature suggests that such reports may reflect a genuine timing constraint as much as a lapse of self-discipline.

Where attendance has been targeted directly, the evidence on interventions is encouraging but qualified. Low-cost message-based nudges have been shown to raise subsequent attendance at tutorials, although the effect attenuates over time (Cortinhas, 2025), and randomised evidence indicates that personally addressed SMS reminders can improve student outcomes largely through the act of contact itself rather than through message content (Brandt et al., 2024). Incentive schemes are more equivocal. A field experiment in a soft-skills training institution found that a rank-based non-monetary reward produced no significant average effect on attendance, but did raise attendance by roughly four to seven percentage points among students whose attendance had previously been low or middling (Arora & Musaddiq, 2023). The practical implication is that rewards may reach the students who most need them without shifting the cohort mean, which matters for how such schemes are evaluated.

These findings also indicate the limits of what a survey of student opinion can establish. Administrative attendance records and students' own reports of their absence have been shown to diverge systematically, not randomly, so that the two sources identify partly different students as at risk (Keppens et al., 2019). Asking students which measures they would find helpful yields information about acceptability and perceived relevance; it does not establish that those measures would change behaviour. Any study that relies on self-report must therefore state clearly what its data can and cannot support.

Within Malaysian TVET specifically, attendance problems sit on a documented pathway towards withdrawal. Research at a Malaysian industrial training institute identifies financial pressure, low motivation and limited institutional support among the causes of TVET dropout (Mohd Rodzi et al., 2024), and survey work in southern-zone vocational colleges finds that intrinsic motivation, together with peer and parental influence, is a stronger driver of engagement than extrinsic incentives (Mohd Yazid & Ali, 2025). Studies published in this journal's own family have examined programme effectiveness and skills mastery at a named vocational college (Daud et al., 2024) and the motivational precursors of

readiness for vocational pathways (Mohd Nordin & Mohd Omar, 2024). What is largely absent from this body of work is programme-level evidence about the daily behaviour that precedes disengagement.

This is the gap the present study addresses. Existing research establishes that attendance matters, that its causes are multiple, and that several interventions have some effect; it does not establish which of these causes are salient for students in a specific, workshop-intensive Malaysian diploma programme, nor which responses those students would accept. Because the relative weight of commuting, sleep timing, academic load and motivation is likely to vary with the timetable, the location and the intake of a given programme, a diagnosis made elsewhere cannot simply be transferred. Teacher action research is well suited to this diagnostic task, since it situates the enquiry in the practitioner's own setting and is designed to inform local action (Kemmis et al., 2014; Mills, 2020), although its small samples and practitioner-collected data impose real constraints on what may be concluded (Moktar et al., 2025).

Accordingly, this study reports the problem-identification phase of an action research cycle conducted with students in the Diploma in Industrial Machining Technology at Kolej Vokasional Sungai Buloh. It addresses two objectives: (i) to identify the factors that students associate with their own absence and lateness; and (ii) to determine which improvement measures students regard as most likely to help, as a basis for selecting interventions in the subsequent action phase. No intervention was implemented during the period reported here, and the study therefore makes no claim about intervention effectiveness. Its contribution is a programme-specific diagnosis that lecturers and college management can use to direct effort towards the pressures students actually report, and a set of candidate measures with documented acceptability to the cohort concerned.

2. Methodology

This section sets out the design, setting, participants, instrument, procedure and analytical approach of the study, together with the ethical considerations observed. The account is given in sufficient detail for the reader to judge what the data can and cannot support (Mohd Majid Konting, 2000).

2.1 Research Design

The study adopted an action research design with a quantitative survey component. Action research is undertaken by practitioners within their own setting in order to understand a problem, plan a response, act, and evaluate the result (Mills, 2020). Creswell and Creswell (2023) note that the approach allows a practitioner to develop a detailed understanding of a local issue through systematic data collection and to base subsequent change on that evidence. The cycle followed here is the four-phase model of planning, acting, observing and reflecting described by Kemmis et al. (2014), illustrated in Fig. 1.

The present article reports the first, diagnostic pass through that cycle. Planning consisted of identifying the attendance and lateness problem from the programme's daily records and constructing an instrument to examine it. Acting consisted of administering the instrument to the students concerned. Observing consisted of analysing the responses alongside the attendance records to establish which factors students associate with their own behaviour. Reflecting consisted of interpreting those results in order to select measures for a subsequent action phase. No improvement measure was implemented during the period reported here; consequently the study makes no claim about the effectiveness of any intervention.

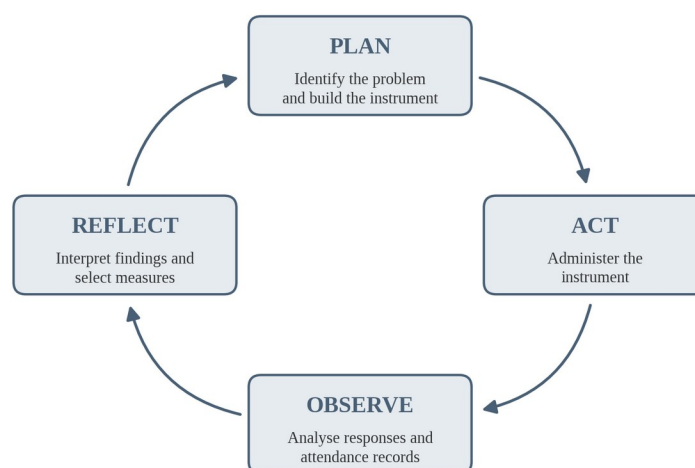


Fig. 1: The four-phase action research cycle applied in this study, after Kemmis et al. (2014)

2.2 Study Setting

The study was conducted at Kolej Vokasional Sungai Buloh, Selangor, Malaysia, within the Diploma in Industrial Machining Technology. The programme delivers competency-based instruction combining classroom teaching with workshop practice on conventional machine tools and Computer Numerical Control (CNC) equipment, in line with the accreditation requirements applied to Malaysian technology and technical programmes (Lembaga Teknologis Malaysia, 2019). A substantial part of the programme's assessed learning takes place on that equipment under supervision, so a session missed or joined late cannot readily be made up elsewhere. This setting was selected because the attendance problem under investigation arose within it and because the researchers taught in the programme, which is the defining condition of practitioner action research.

2.3 Participants

The questionnaire was distributed to students enrolled in the Diploma in Industrial Machining Technology, and 35 complete responses were returned. Participants were selected purposively as the group directly associated with the attendance and lateness pattern under examination. The demographic composition of the respondents is reported in Section 3.1. Because the respondents constitute a single intact group in one programme at one college, they are not intended to represent vocational students generally, and no inference beyond this cohort is drawn.

2.4 Research Instrument

The instrument was a structured questionnaire administered online. Following Sekaran and Bougie (2020), the items were derived from the study objectives and from factors reported in the attendance literature. The questionnaire comprised five sections. Section A recorded demographic information: gender, semester of study, type of residence and main mode of travel to college. Section B recorded students' experience of absence and lateness and their awareness of the college's attendance regulations. Section C measured the factors associated with attendance and lateness, grouped into personal, transport, academic and environmental items. Section D recorded students' views on proposed improvement measures. Section E consisted of open-response items.

Sections C and D used a five-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = agree, 5 = strongly agree). The open-response data from Section E were not analysed for this article and are not reported here.

2.5 Validity and Reliability

Validity refers to the extent to which an instrument measures what it is intended to measure, and reliability to the consistency of the measurements it yields (Fraenkel et al., 2019). Content validity was addressed by mapping each item to one of the study objectives and to a factor documented in the literature reviewed in Section 1, and by reviewing the draft instrument for clarity and relevance to the vocational college context before administration.

Internal consistency is conventionally assessed using Cronbach's alpha, with values of .70 and above regarded as acceptable (Nunnally & Bernstein, 1994). A reliability coefficient was not computed for this administration. This is acknowledged as a limitation in Section 4.9, and the descriptive findings reported below should be read accordingly.

2.6 Data Collection Procedure

Data were collected in four stages. First, the attendance problem was identified from the daily attendance records maintained for the programme, which are compiled by the class lecturer at the start of each teaching day and record both presence and time of arrival. Second, the questionnaire was constructed from the study objectives and the literature. Third, the questionnaire was distributed to students in the programme, who completed it voluntarily, and 35 complete responses were returned. Fourth, the responses were compiled, checked and prepared for analysis alongside the attendance records for the same period.

2.7 Data Analysis

Questionnaire responses were analysed using descriptive statistics (Pallant, 2020). Frequencies and percentages were used to describe the demographic profile of the respondents and the pattern of reported absence and lateness. Percentages were calculated as:

$$\text{Percentage (\%)} = (\text{Number of respondents in category} / \text{Total number of respondents}) \times 100$$

Mean scores were computed for each Likert-scale item and interpreted using three bands: 1.00 to 2.33 indicating a low level, 2.34 to 3.67 a moderate level, and 3.68 to 5.00 a high level. The bands are stated here because the interpretation attached to a mean score is a matter of convention rather than of measurement, and the reader should be able to apply a different convention if preferred. No inferential test was conducted, because the study involves a single group with no comparison condition and no repeated measure; the analysis is therefore descriptive throughout.

2.8 Ethical Considerations

Participation was voluntary and no student was required to complete the questionnaire. Respondents were informed of the purpose of the study and that their responses would be treated as confidential and used only for research. Individual

respondents are not identified in this article. Where attendance records are reproduced, student names recorded in the original register have been replaced with codes, and no information is presented that would allow an individual student to be identified.

3. Results

This section reports the demographic profile of the respondents, the pattern observed in the programme's attendance records, the mean scores for the factors students associate with absence and lateness, and the mean scores for their views on proposed improvement measures.

3.1 Respondents' Profile

Thirty-five students completed the questionnaire. The cohort was overwhelmingly male and concentrated in the first semester of study, and most respondents lived in the family home rather than in college accommodation. The demographic profile is summarised in Table 1.

Table 1: Demographic Profile of Respondents (n = 35)

Characteristic	Category	n	%
Gender ^a	Male	34	97.1
	Female	2	5.7
Semester of study	Semester 1	28	80.0
	Semester 3	6	17.1
	Semester 4	1	2.9
Type of residence ^b	Family home	22	64.7
	College hostel	9	26.5
	Rented accommodation	3	8.8
Main mode of travel ^b	Motorcycle	23	67.6
	Car	5	14.7
	Other (bus, commuter rail, dropped off, on foot, resident on campus)	6	17.7

Note. ^a Percentages for gender exceed 100 because the item was administered as a multiple-response item rather than a single-choice item; 36 responses were recorded for 35 respondents. ^b One respondent did not answer these items (n = 34).

Two features of this profile bear directly on the analysis that follows. First, roughly three-quarters of respondents (73.5%) travelled to college each day from the family home or from rented accommodation rather than living on campus, so for most of the cohort attendance depends on completing a journey. Second, the dominant mode of travel was the motorcycle, used by 23 of the 34 respondents who answered the item. The distribution of residence and travel mode is shown in Fig. 2.

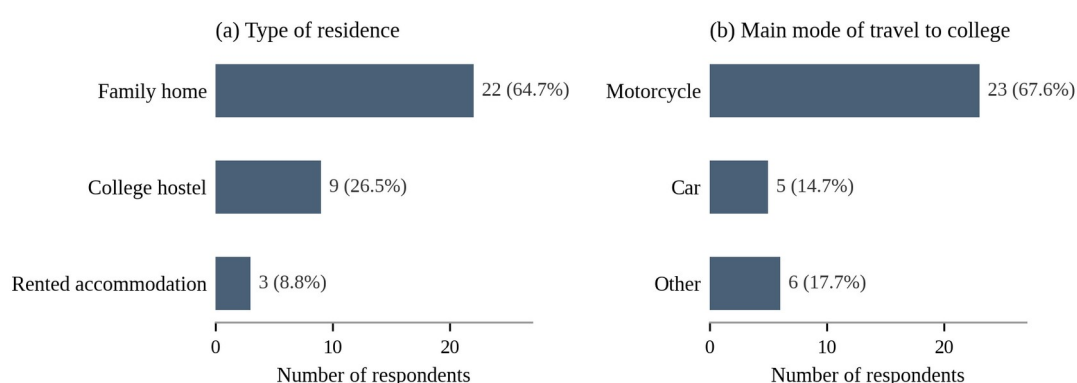


Fig. 2: Type of residence and main mode of travel to college reported by respondents (n = 34)

3.2 Attendance and Lateness Records

The daily attendance records maintained for the programme were examined before the questionnaire was administered, in order to establish the shape of the problem rather than to measure its extent. The records distinguish between absence and late arrival, recording the time at which a late student joins the session.

The pattern in these records is more specific than the general description of an “attendance problem” suggests. On the representative day reproduced in Table 2, every student in the class group was present, yet six arrived after the scheduled start, all within a narrow window of about ten minutes. The issue observed in this programme is therefore predominantly one of punctuality rather than of absence, and the clustering of arrival times points towards a shared external cause acting on the morning journey rather than towards independent decisions by individual students.

Table 2: Late Arrivals Recorded for One Class Group on a Representative Teaching Day (Tuesday, 4 August 2026)

Student code	Recorded arrival time
S1	08:10
S2	08:10
S3	08:10
S4	08:10
S5	08:11
S6	08:11

Note. Attendance for the group on this day was 31 of 31 students. Student codes replace the names recorded in the original register.

3.3 Factors Associated with Attendance and Lateness

Mean scores were computed for the factor items in Section C of the questionnaire. Table 3 reports the five items for which mean scores are available.

Table 3: Mean Scores for Factors Associated with Attendance and Lateness (n = 35)

No.	Item	Mean	Interpretation
1	Traffic and road congestion on the journey to college	3.06	Moderate
2	Staying up late at night	2.89	Moderate
3	Lack of motivation to attend college	2.20	Low
4	Peer influence on attendance	2.06	Low
5	Lack of interest in the subject	2.00	Low

Note. Five-point Likert scale (1 = strongly disagree, 5 = strongly agree). Interpretation bands: 1.00–2.33 low; 2.34–3.67 moderate; 3.68–5.00 high.

Traffic and road congestion on the journey to college recorded the highest mean ($M = 3.06$), followed by staying up late at night ($M = 2.89$). Both fall in the moderate band. The three lowest-scoring items were attitudinal: lack of interest in the subject ($M = 2.00$), peer influence ($M = 2.06$) and lack of motivation to attend ($M = 2.20$), all in the low band.

Two observations follow. The ordering separates situational factors, which students endorsed more strongly, from dispositional factors, which they endorsed least; this ordering is consistent with the clustering of arrival times observed in Section 3.2. At the same time, no item reached the high band. The highest mean recorded across all factor items was 3.06, which sits close to the midpoint of the scale. The results therefore do not identify a single dominant cause of lateness in this cohort, and are better read as indicating several moderate pressures acting together.

3.4 Students' Views on Proposed Improvement Measures

Section D of the questionnaire asked students how far they agreed that a set of proposed measures would help them attend. The mean scores are reported in Table 4.

Table 4: Mean Scores for Students' Perceived Usefulness of Proposed Improvement Measures (n = 35)

No.	Item	Mean	Interpretation
1	I feel comfortable at college	4.09	High
2	Encouragement from my family motivates me to attend	4.06	High
3	Rewards for full attendance would increase my motivation	4.06	High
4	WhatsApp reminders about class times would help me	3.63	Moderate
5	Counselling and motivational sessions would help me	3.46	Moderate
6	Regular monitoring of attendance would help me	3.43	Moderate
7	A mentor–mentee system would help me	3.26	Moderate

Note. Five-point Likert scale (1 = strongly disagree, 5 = strongly agree). Interpretation bands as in Table 3. Scores express anticipated usefulness; no measure was implemented or evaluated during this phase.

The highest-rated item was feeling comfortable at college ($M = 4.09$), followed by family encouragement and rewards for full attendance, each at $M = 4.06$. All three fall in the high band. The four remaining measures fall in the moderate band: WhatsApp reminders ($M = 3.63$), counselling and motivational sessions ($M = 3.46$), regular attendance monitoring ($M = 3.43$) and a mentor–mentee system ($M = 3.26$), with reminders closest to the high threshold.

These scores record what students expected to find helpful. Because no measure was implemented during this phase, they cannot be read as evidence that any measure would in fact change attendance behaviour; their value lies in establishing which measures the cohort would be likely to accept.

4. Discussion

The results should be read as a diagnosis rather than as a demonstration. The study identified which factors a single cohort associates with its own absence and lateness, and which improvement measures that cohort regards as helpful. Read within those limits, three findings carry practical weight: the problem in this programme is one of punctuality rather than absence; the factors students endorse most strongly are situational rather than attitudinal; and no factor reached the high band, so no single cause accounts for the pattern.

4.1 A Punctuality Problem, Not an Absence Problem

The distinction matters because the two behaviours have different causes and different remedies. On the day reproduced in Table 2 the class group recorded full attendance, and six students arrived within a ten-minute window after the scheduled start. A student who decides not to attend has made a decision about the class; a student who arrives eleven minutes late has usually not. The questionnaire results align with this reading: the items that describe a decision not to attend, namely lack of interest, lack of motivation and peer influence, were the three lowest-scoring items in the instrument. Interventions built on the assumption of disengagement would therefore be addressed to a problem this cohort does not appear to have.

4.2 Commuting as a Structural Constraint

Traffic and road congestion recorded the highest mean in the study, and the demographic profile explains why this is plausible rather than merely convenient: roughly three-quarters of respondents travel in daily, and two-thirds of those who travel do so by motorcycle. Motorcycle commuting on Klang Valley routes is exposed to congestion and to weather in a way that a hostel resident's walk across campus is not. The finding is consistent with evidence that the distance and duration of the journey to school are associated with lateness as well as absence (Bammou et al., 2024), and with quasi-experimental evidence that improving access to transport raises attendance and reduces chronic absence, most of all among disadvantaged students (Edwards, 2024). Ramchander (2017) likewise found lateness concentrated in early-morning sessions and among students early in their studies, a description that fits a cohort in which 80% were in their first semester.

The practical implication is uncomfortable, because commuting conditions lie outside the college's control. What lies inside its control is the institutional response: whether the first session of the day is timetabled for activity that a student arriving at 08:11 can still join, and whether a ten-minute late arrival is recorded and treated in the same way as an absence. Neither response reduces congestion; both reduce the educational cost of it.

4.3 Sleep Timing and the Morning Routine

Staying up late recorded the second-highest mean ($M = 2.89$). It is tempting to treat this as a self-discipline problem, and the wording of the item invites that reading. The chronobiological literature suggests a more careful interpretation. Adolescents and young adults tend towards a late chronotype, and where institutional start times are early, misalignment between biological and social timing carries measurable educational consequences: closer alignment between chronotype and school shift has been associated with lower grade retention, with the disadvantage to late chronotypes shrinking as start times move later (Rodríguez Ferrante et al., 2023). Late bedtimes and early starts compound each other, and a student for whom both hold faces a constraint that exhortation is unlikely to remove. This does not mean the college should change its timetable, which is fixed by wider requirements; it does mean that guidance on sleep timing is a more promising response than an appeal to effort.

4.4 What the Low Attitudinal Scores Do and Do Not Show

The three attitudinal items scored in the low band, which the paper reads as indicating that students in this cohort remain broadly engaged with the programme. That reading is reasonable but should be qualified in two ways. First, these items ask students to attribute their own lateness to a lack of interest or motivation, and such items are subject to social desirability, particularly when administered by the students' own lecturers. Second, self-reported and administratively recorded attendance have been shown to diverge systematically rather than randomly, identifying partly different students as at risk (Keppens et al., 2019). The convergence between the low attitudinal scores and the full attendance recorded in Table 2 is therefore reassuring, but it rests on one day's register and should not be treated as corroboration in a strong sense.

4.5 Endorsement Is Not Effectiveness

Students rated a comfortable college environment, family encouragement and full-attendance rewards most highly, all in the high band. These scores describe acceptability, and acceptability is a genuine precondition for implementation: a measure students reject is unlikely to survive contact with them. But the gap between endorsement and effect is well documented. A test of the Theory of Planned Behavior against observed attendance found that intention and perceived behavioural control together explained only a modest share of the variance in whether students actually attended, and that adding academic motivation did not close the gap (Mergelsberg et al., 2021). Ajzen's (1991) framework predicts exactly this outcome where perceived behavioural control is low: a student may hold a favourable attitude, perceive a supportive

norm, and still fail to arrive on time because the journey is not under their control. Given that the highest-scoring factor in this study was a commuting constraint, that condition appears to obtain here.

4.6 Reading the Proposed Measures Against the Evidence

The measures students endorsed differ considerably in how well they are supported by evaluation evidence. Message-based reminders, which students rated closest to the high band among the actionable measures ($M = 3.63$), have the strongest support: emailing students who missed a session significantly raised subsequent attendance, although the effect attenuated over time (Cortinhas, 2025), and randomised evidence indicates that personally addressed SMS reminders improve outcomes largely through the act of contact rather than through message content (Brandt et al., 2024). That mechanism transfers readily to a WhatsApp group of the kind already used in this programme, and it also implies that reminders will need refreshing rather than being set up once.

Attendance rewards, which students rated among the highest, have more equivocal support. A field experiment in a soft-skills training institution found that a rank-based non-monetary reward produced no significant average effect on attendance, but raised attendance by roughly four to seven percentage points among students whose attendance had previously been low or middling (Arora & Musaddiq, 2023). Read alongside the present results, this suggests that a reward scheme in this programme should be evaluated on whether it reaches the students who are habitually late, not on whether the cohort mean shifts. This is a distinction that a study designed around group averages would miss entirely.

4.7 Implications for the Programme

Taken together, the findings point towards a modest, low-cost package rather than a single intervention: a reminder routine using the messaging platform already in use; recognition of sustained punctuality alongside recognition of full attendance; and guidance on sleep timing and morning routines delivered as part of existing mentoring rather than as an additional programme. None of these requires funding or equipment, which matters in a vocational college where resources are directed towards workshop provision. Equally, none of them addresses road congestion, and the results should not be used to suggest otherwise. The more consequential decision available to the programme is how the first session of the day is structured: whether a student who arrives at 08:11 has missed a safety briefing and forfeits the session, or joins a task still in progress.

The wider Malaysian evidence supports treating punctuality as an early signal rather than a minor infraction. Studies of TVET withdrawal identify low motivation and limited institutional support among the causes of dropout (Mohd Rodzi et al., 2024), and survey work in vocational colleges finds intrinsic motivation and family influence to be stronger drivers of engagement than extrinsic incentives (Mohd Yazid & Ali, 2025), a finding echoed here in the high rating given to family encouragement. Where competency is acquired through supervised practice, and mastery tracks direct hands-on exposure (Masran et al., 2025), accumulated late arrivals translate into lost attempts at assessed skills.

4.8 Limitations

The limitations of this study are substantial and constrain every claim made above. The design involves a single intact group of 35 students in one programme at one college, with no comparison group and no repeated measure; the analysis is descriptive, and no inferential test was conducted or would be justified. No improvement measure was implemented or evaluated, so the study establishes nothing about intervention effectiveness. Mean scores are reported without standard deviations, and a reliability coefficient was not computed for this administration, so the internal consistency of the scales is unknown. Mean scores are available for five of the factor items only; the remaining items are omitted rather than reported without their statistics. The attendance evidence rests on a single representative day rather than on a compiled series. The data are self-reported and were collected by the students' own lecturers, which raises the possibility of social desirability in responses to the attitudinal items in particular, and the researchers' dual role as teachers and investigators is a recognised constraint on practitioner action research more generally (Moktar et al., 2025). The open-response section of the instrument was not analysed. Finally, the cohort was 97% male and 80% first-semester, so the findings describe a particular intake and should not be generalised to vocational students at large.

4.9 Directions for Further Work

Each limitation suggests a specific next step. The action phase of the cycle should implement the reminder routine and the punctuality recognition scheme and evaluate them against the programme's own attendance register rather than against student opinion, reporting the change in late arrivals over a defined period. Following Arora and Musaddiq (2023), that evaluation should report results separately for students whose baseline punctuality was poor, since an effect concentrated in that group would be invisible in a cohort mean. Attendance data compiled across a full semester, rather than a single day, would establish whether late arrivals cluster on particular days or sessions. Recording arrival times against travel mode and distance would test the commuting explanation directly. Extending the study to other programmes and colleges would indicate how far the pattern is specific to this intake, and administering the instrument through a colleague not teaching the cohort would reduce the response bias associated with the present arrangement.

5. Conclusion

This study reported the problem-identification phase of an action research cycle examining attendance and lateness among students in the Diploma in Industrial Machining Technology at Kolej Vokasional Sungai Buloh. Its purpose was diagnostic: to establish which factors students associate with their own absence and lateness, and which improvement measures they would regard as helpful.

The findings indicate that the difficulty in this programme is one of punctuality rather than absence. Travel and road congestion recorded the highest mean among the factors examined, followed by late bedtimes, while lack of interest, peer influence and lack of motivation recorded the lowest. No factor reached the high band of the interpretation scale, and the results are therefore better read as several moderate pressures acting together than as one dominant cause. Among the measures put to students, a comfortable college environment, family encouragement and full-attendance rewards were rated most favourably, and message-based reminders were the most highly rated of the measures the programme could implement directly.

No improvement measure was implemented or evaluated during this phase. The study therefore makes no claim that any measure improves attendance; what it establishes is which measures this cohort would accept, and which pressures those measures would need to address. On that basis the programme can proceed to the action phase with a package of low-cost measures, comprising a reminder routine, recognition of sustained punctuality and guidance on morning routines, evaluated against the attendance register rather than against student opinion. The wider value of the study lies in the reframing it supports: where lateness clusters within a narrow window among students who are otherwise present and engaged, it is more usefully treated as a logistical problem with an educational cost than as a failure of discipline.

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Conflict of Interest

The authors declare that there is no conflict of interest.

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