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Perspectives on Directors' Transformational Leadership: Insights from Cambodian High School Teachers

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ABSTRACT

Different types of leaders work in various settings. School directors have always been regarded as essential individuals in school settings, and they are usually regarded as sample individuals for teachers and other educational staff. The current study investigates high school teachers' perceptions of directors' transformational leadership (DTL) in four Cambodian provinces, concentrating on five essential dimensions: idealized influence (attributes), idealized influence (behaviours), inspirational motivation, individual consideration, and intellectual stimulation. Six hundred thirty-nine teachers participated in the study, indicating favourable evaluations of their directors' leadership methods. Although most variables exhibited uniform perceptions, the findings revealed significant differences in inspiring motivation and individual consideration, especially amongst Kampong Cham and Kampong Chhnang teachers. Teachers in Kampong Cham indicated elevated perceptions of motivation and personalized support from their directors, implying that the efficacy of leadership may differ by provincial settings. These findings emphasize the significance of comprehending local dynamics in educational leadership and reinforce the essential function of DTL in cultivating a supportive and motivated atmosphere for teachers. The study underscores the necessity for customized leadership approaches to elevate teacher satisfaction and promote educational findings in Cambodian schools. Last, but not least, it is recommended that future studies be conducted in provinces other than the four that were part of the current study and that the number of participants is increased. Additionally, combination designs and qualitative designs are recommended.

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1. INTRODUCTION

Within educational settings, leadership possesses the potential to influence teaching practices and student outcomes [1]. Recent literature has paid more attention to the relationship between leadership and teaching [2]. New school reforms frequently emphasize the importance of effective leadership practices, and studies often outline instructional

leadership as a decisive factor for school effectiveness [3]. From the 12th year onwards, American students begin high school; sometimes, the location or quality of these high schools may genuinely impact their academic outcomes and even life courses [4]. High school and school directors emerged as a critical aspect of student outcomes [5]. High school directors and leaders hold centrality in the educational community, with the potential to significantly impact practice and learning through their role [6]. Nevertheless, leadership has somewhat been neglected until recently, with renewed interest in leadership development and the skills required of high school directors [7], [8].

Reform efforts to reshape leadership resurfaced in New Zealand by developing and integrating the educational leadership capabilities framework, focusing on stakeholder stewardship, change capability, and educational and moral purpose [9]. While the best practices and effective director-led school-wide change strategies may be generally appropriate [10], it is imperative to gain a deeper understanding of the specific leadership practices, if any, that might be more directly effective within the context of high schools [11], [12]. In Thailand, Promchart and Potipiroon [13] found that directors' transformational leadership (DTL) can significantly reduce teacher turnover by enhancing their perceptions of safety and job satisfaction. Specifically, at both the individual and organizational levels, the relationship between transformational leadership (TL) and turnover intentions was fully and sequentially mediated by perceived safety and job satisfaction.

However, looking at the Cambodian context, where there is also the neighbouring context of Thailand, very limited studies have been done about high school teachers and leaders, leadership, and leadership styles concerning each other. This study sought to explore high school teachers' perceptions of their DTL. Of particular interest was whether the theories and practicalities of DTL held together, according to high school teachers.

1.1. Review of Related Literature

TL has been a topic of interest in professional literature since it was first proposed in management, and it is one of the most studied leadership styles in the organizational field [14]. TL also nurtures trust and belief and changes the attitudes and values of followers in the educational field [15]. Convergently, studies that explore the impact of TL on educational institutions have been conducted at several educational levels, including university levels, as well as postsecondary and nonprofessional levels [1], [16], [17].

Transforming teachers' perceptions is more fundamental than subject matter outcomes; most research inspects the relationship between TL and teachers' outcomes [18]. Providing a model and affirming understandings based on these studies, TL scholars in academia and industry normally seek teachers' or educators' outcomes [19]. Therefore, frameworks and historical paradigms have proposed that the main leaders work regarding followers' attitudes, beliefs, and dispositions [20]. A neo-charismatic leadership model is known to indicate TL. Instructional leadership has been widely discussed as the origin of TL [21]. Moreover, TL in universities can improve the civic engagement of college students. As civic engagement declines during the session, higher education students may risk developing negative attitudes due to a lack of trust and belief in transformational-oriented higher education leaders [22].

1.2. TL Theory

TL theory is an influential approach in leadership studies that focuses on the leader-follower relationship [23]. In its conception, the theory posits four interlocked contingent behaviours of TL leaders, who engage in (four "I") factors that exert a remarkable impact on followers [24]. TLs profoundly impress the hearts and spirits of their group members and shape a new consciousness. The transformation engaged by such interchanges is significant in terms of personal changes and awareness of the emotional and moral realm [25]. Later on, TL has been focused on five dimensions (five "I") rather than four [26].

Leaders displaying the characteristics of TLs may increase efforts to foster employees' motivation and enhance overall performance in their academic activities [27]. Universal viewpoints acknowledge TL components as supportive in a leadership style that aspires toward accountability and findings in high student achievement [28]. TL establishes a stimulating, empowering, and mind-enhancing environment in such a relationship. In transformational settings in education, leadership performance is tied to the subordinates' performance with specific job requirements, roles, and agreed-upon actions and objectives delineated in job descriptions [29]. School directors' practical encounters with TL effects can be derived, in that connection, by enhancing the rewarding and transformational behaviours such as increased job orientation, supplementation of employee job content, and application of more rules and procedures [30]. These components attach intrinsic worth and meaning to work, signal spirit and vision, show thoughtful concern, assign significance to every follower, contribute a vision to inspire each stakeholder, and emphasize intellectual competence, judgment, and rationality [25], [31].

1.3. Impact of TL on Teachers' Self-Efficacy

Interestingly, some studies have found that DTL positively affects teachers' self-efficacy [32]. In studies of directors and teachers in public middle schools, some correlation was identified between teachers' self-efficacy and several TL factors: the leaders' charisma, their inspirational motivation (IMO), their intellectual stimulation (IST), and their individualized consideration (ICO) [33], [34]. In addition, it was found that these same transformational variables correlated to a lesser degree with teachers' commitment to their schools and teachers' satisfaction with their directors [35]. TL develops followers' self-efficacy through verbal persuasion, providing cues through building efficacy-enhancement leadership advocacy followed by efficacy-enhancing emotions and offering direct mastery experiences in favour of the self-doubters [36]. Empirical studies have evidenced that school directors' personalities, leadership styles, and behaviour can shape school culture [37], [38]. Directors can create an emotional climate that significantly influences teachers' motivation and professional commitment. It is noted that DTL's style contributes to strengthening the school's professional culture [39].

Just as subordinates find models, those influences guide them in their leaders, so do they find inspirers in their leaders [14]. Leaders can influence subordinates toward higher motivation, resulting in increased confidence in their own personal and professional worth and abilities as employees [40]. Transformational leaders (TLs) are role models that inspire their subordinates and create confidence in them [41], [42].

1.4. Impact of DTL on Teachers' Performance

Literature has shown that leadership practices can polish educators' performances. Many studies stated that DTL positively impacts teachers' attitudes and behaviours in the educational sector [43]. TLs influence the behaviours of their followers by encouraging a change in their perspective of their jobs, motivating individuals beyond normal expectations, accommodating individuals with ICO, and raising the consciousness and awareness of members through IST [44]. It includes a strong organizational commitment, satisfaction with the immediate supervisor, trust in management, lower turnover intention, and the employees' decision to join the organization [45].

It is still an unsolved question whether DTL is directly related to teachers' performance [46]. According to social exchange theory, some researchers have proved a direct relationship between TLs and individual satisfaction, which predicts that subordinates will elect solely to have a mutually beneficial relationship with their leaders [47]. Furthermore, teachers face several issues while teaching students, which may lower their teaching interest. Thus, it can fluctuate emotionally, confront verbal attitudes from the students, feel pressure from supervisors, and feel tired [48].

1.5. Empirical Studies

A crucial paradigm for discussing equality, transformative methods, and the part educational leaders play in furthering social justice is social justice leadership (SJL). Based on this clue, Karakose et al. [49] used SciMAT software for sequential analysis in their review to synthesize research topics and trends in SJL throughout three time periods (2003–2022). A bibliometric and scientific mapping study of 135 articles extracted from the Scopus database forms its basis. During the first phase (2003–2012), fundamental research focused on leaders' moral obligations to promote diversity and emphasized transformative leadership, social justice, and equity. During the second period (2013–2017), the focus shifted to school directors as change agents, scrutinizing their role in cultivating school cultures and prioritising justice. Studies became more diverse during the third period (2018–2022), with themes extending to principals' instructional leadership and their function in attaining fair findings for underrepresented groups. This change is a finding of a greater awareness of SJL's contribution to reducing educational inequalities and promoting the well-being of marginalized student groups. The findings can further enhance the understanding of SJL's practice and findings in various educational contexts while highlighting opportunities for future research, including cross-cultural applications and specific competencies required for systemic change.

It is now well acknowledged that mentoring is essential to school directors' professional growth, especially when offering new hires career and psychosocial support. There is a large corpus of studies on mentoring in school leadership development since it is crucial for maintaining schools by encouraging efficient administration. Thus, Yirci et al. [50] used SciMAT software to do a bibliometric and scientific mapping analysis of 121 articles from the Scopus database to assess this knowledge base holistically, looking at the intellectual structure and development of mentorship research. According to a period-based analysis, early studies focused on networking and professional growth, whereas more recent

studies focused on mentoring to foster leadership abilities. Themes such as improving the quality of mentoring and empowering directors to promote social justice have gained significant attention within the last five years. These findings point to the necessity of long-term mentorship programs that enhance school directors' leadership and professional competencies, eventually fostering school success and innovation.

Transformational school leadership (TSL) has been extensively studied to address growing demands for greater effectiveness in school systems, resulting in a substantial knowledge base. Karakose et al. [51] investigated the intellectual and conceptual evolution of TSL through a bibliometric and science mapping analysis of 300 articles retrieved from the Scopus database, using SciMAT software to analyze three distinct periods: the Incubation Period (1989–2009), the Development Period (2010–2020), and the Maturation Period (2021–2022). During the Incubation Period, research focused on conceptualizing TSL and introduced mentoring as a theme, though it did not develop further in subsequent periods. During the Development Period, they emphasized principals, instructional leadership, and self-efficacy, with teacher leadership remaining a weakly addressed theme. The Maturation Period saw the emergence of work-family conflict and digital competencies as prominent themes, alongside online learning and learning culture as emerging areas. The findings underscore critical implications for advancing TSL research sustainably by addressing underdeveloped themes and integrating evolving priorities in educational leadership.

Distributed leadership (DL) has garnered significant research interest, given the complexity of modern schools and the inherently shared nature of leadership within them. Numerous studies have enriched this knowledge base through both empirical and conceptual approaches. Karakose et al. [52] examined the bibliometric performance, intellectual structure, and strategic themes within DL research, specifically focusing on schools. Using a dataset of 221 articles published between 2002 and 2021 from the Web of Science database, science mapping analysis with SciMAT was conducted to capture the field's conceptual structure and thematic evolution across three periods, enabling comparison of changing thematic trends. Bibliometric performance analysis further highlighted the growth in DL publications, including the annual distribution of studies, cumulative publications, average citations per article, and identification of influential authors and journals. Findings indicate significant growth in DL research over the past decade, with themes evolving from school improvement and effectiveness to a focus on teacher commitment, instructional leadership, innovation, and school capacity-building. These findings underscore the development of DL as a critical area in educational leadership, reflecting the growing emphasis on collaborative and capacity-focused approaches to school leadership.

The digitalization of workplaces driven by technological advancements has reshaped business models and behaviours, necessitating leaders to acquire digital skills for sustainable corporate performance. This paradigm shift has drawn significant academic and practical attention to digital leadership, encompassing styles like e-leadership, virtual leadership, technology leadership, and leadership 4.0. Karakose et al. [53] holistically reviewed the digital leadership field's intellectual structure and thematic evolution through bibliometric and science mapping analysis. The analysis used SciMAT software to examine articles

retrieved from the Scopus database, revealing a steadily growing and diversifying research scope. Period-based findings identified key themes, including technology management in the first period, virtual teams and technology in the second period, and COVID-19, virtual reality, and digital technologies in the third period. Thematic evolution analysis highlighted virtual leadership in the first and second periods, virtual teams in the second period, and e-leadership, technology, digital leadership, and COVID-19 as well-developed themes in the third period. Technology leadership persisted as a consistent focus across all periods. These findings contribute to understanding digital leadership research's conceptual and thematic trajectory and offer a foundation for future investigations in this evolving field.

To put it briefly, there are significant similarities between DTL and the dynamic evolution of leadership techniques in response to societal, technical, and educational problems, as evidenced by research in various leadership areas. TLs' emphasis on fostering inclusive educational settings aligns with SJL research, highlighting the importance of equity-driven strategies in addressing structural vulnerabilities. Similarly, mentoring for school administrators emphasizes the importance of promoting fairness and professional development, which is consistent with TLs' focus on inspiring and empowering educators. A key idea in TLs for developing collective capacity, DL highlights the value of teamwork in navigating intricate school systems. TLs' ability to adjust to changing educational demands is shown in the development of TSL research, from conception to tackling real-world issues, including work-life balance and digital competencies. Finally, digital leadership emphasizes how innovation and technology may be integrated, which is crucial for TLs to promote long-term school performance. Collectively, these empirical studies offer a thorough framework emphasising how important TLs are to promoting fairness, cooperation, and creativity in educational settings.

1.4. Research Objectives

The current study has two objectives:

1. To explore high school teachers' perceptions in terms of DTL.
2. To investigate if there is a significant difference in perceptions among high school teachers from different provincial areas.

2. RESEARCH METHODOLOGY

2.1. Research Design

This study employs a quantitative design to thoroughly investigate teachers' impersonations of their DTL through survey and causal-comparative designs [54]. The reason behind using a quantitative design in the current study is that TL has been conducted extensively. Thus, a quantitative design is the best for this situation, and also this study has so many participants that qualitative interviews cannot be conducted. Thus, the survey design facilitates the collection of structured data from a substantial sample of 639 teachers throughout four distinct provinces of Cambodia, enabling the identification of trends and patterns in their responses. The study employs causal-comparative analysis to examine the relationships between independent variables, specifically gender and age, and dependent variables encompassing the five dimensions of TL: IIA, IIB, IMO, ICO, and IST. This

methodological framework not only facilitates the examination of viewpoint disparities based on demographic characteristics but also provides a robust basis for drawing significant conclusions about the impact of TL on teachers' professional experiences. The integration of these quantitative designs enhances the validity and dependability of the findings, facilitating a deeper understanding of the correlation between teacher views and DTL styles within Cambodian educational settings.

2.2. Population and Samples

2.2.1. Population

In research, a population refers to the complete set of individuals, objects, or events a researcher intends to investigate and analyze for conclusions. The research determines the definition aims and the specific factors or attributes under investigation [55], [56]. The population of the current study was selected scientifically from four provinces in Cambodia.

Table 1. Number of Population of Each Target High School in 2024

No.	Names of High School	Teachers	Females	Provinces
1.	Samdech Chuon Nath High School	180	88	Kampong Cham (Total = 289)
2.	Preah Sihanouk High School	109	68	
3.	Krong Kampong Chhnang High School	160	63	Kampong Chhnang (Total = 320)
4.	Preah Bart Suramrit High School	160	53	
5.	Sokha Phally High School	92	40	Kampong Speu (Total = 181)
6.	Kampong Speu High School	89	38	
7.	Mithapheap-Kampuchea-Japan Kampot Krong High School	80	42	Kampot (Total = 195)
8.	Hun Sen Chhouk High School	115	45	
		All in Total = 985	F = 437	

Note: The first author asked for the number of teachers from school directors. They were teaching staff, normally called teachers. Non-teaching staff were not included in the table because they were not the target population for the current study.

Table 1 provides an overview of the personnel distribution across eight high schools in 2024, focusing on the total number of teachers, the number of female teachers, and the provinces where the schools are located. In Kampong Cham province, Samdech Chuon Nath High School has 180 teachers, of whom 88 are female, while Preah Sihanouk High School employs 109 teachers, with 68 being female, bringing the total number of teachers in Kampong Cham to 289.

In Kampong Chhnang province, Krong Kampong Chhnang High School has 160 teachers, including 63 females, and Preah Bart Suramrit High School also has 160 teachers, with 53 being female, making the total number of teachers in Kampong Chhnang 320.

In Kampong Speu province, Sokha Phally High School has 92 teachers, of whom 40 are females, and Kampong Speu High School has 89 teachers, 38 being female, resulting in 181 teachers in Kampong Speu.

In Kampot province, Mithapheap-Kampuchea-Japan Kampot Krong High School has 80 teachers, including 42 females, and Hun Sen Chhouk High School has 115 teachers, with 45 females, for a total of 195 teachers in Kampot.

Overall, the total number of teachers across all eight high schools is 985, with 437 females.

2.2.2. Sampling Techniques

There are four educational regions in Cambodia as follows.

- **Central Plain**: Kampong Cham, Tbong Khmum, Kandal, Phnom Penh, Prey Veng, Svay Rieng, and Takeo
- **Tonle Sap**: Banteay Meanchey, Battambang, Kampong Chhnang, Kampong Thom, Pursat, Siem Reap, Otdor Meanchey, and Pailin
- **Coastal and Sea**: Kampot, Koh Kong, Preah Sihanouk, and Kep
- **Plateau and Mountains**: Kampong Speu, Kratie, Mondul Kiri, Preah Vihear, Ratanak Kiri, and Steung Treng.

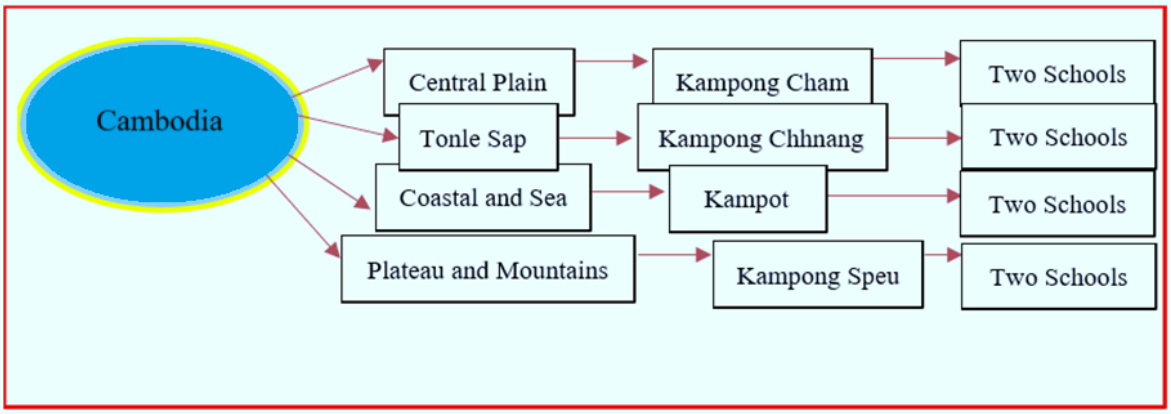

Figure 1. The Process of Clustering and Simple Random of Participants

Multiple stages were applied to select the sample for the current study. Figure 1 represents the sampling process for selecting participants from Cambodia's total population of high school teachers. According to Em et al. [57], Cambodia, located in Southeast Asia, has a diverse educational landscape with varying challenges and opportunities across its regions. This figure aims to visually explain how a representative sample of high school teachers is selected from this varied population.

Cambodia has four main regions: Central Plain, Tonle Sap, Coastal and Sea, and Plateau and Mountains. Each region has unique geographical and socioeconomic characteristics, which influence the educational environment. The clustering begins by dividing the total population of high school teachers into these four regions, ensuring a balanced representation from each area.

One province was randomly selected from each region to narrow the sample further. The selected provinces were Kampong Cham from the Central Plain, Kampong Chhnang from Tonle Sap, Kampot from the Coastal and Sea, and Kampong Speu from the Plateau and Mountains. Highlighting these provinces helps focus the study on specific, manageable areas within each region, allowing for more detailed and region-specific insights.

Within each selected province, two high schools were chosen to represent the province's educational landscape. A simple random sampling method was used to select the teachers from these high schools. This final step (not presented in the figure) ensured that the teachers chosen for the study represented the broader population, providing reliable data for understanding Cambodia's educational situation and needs.

2.2.3. Samples

A research sample is a subset of a broader population chosen for data gathering in a research project. Sampling aims to utilize a representative sample to conclude the attributes of the complete population [58], [59]. The selection of teachers from various high schools in Cambodia was carried out using simple random techniques. The current study includes a total of 639 samples that have been chosen. The tool for data collection was a five-point Likert scale questionnaire.

Table 2. Participants' Demographic Information

Demographics	Values	Number	Percentage
Gender	Male	309	48.40
	Female	330	51.60
Age Range	20-30 Years	99	15.50
	31-40 Years	217	34.00
	41-Over	323	50.50
Degree	High School Degree	98	15.30
	Bachelor' Degree	442	69.20
	Master's Degree	99	15.50
Province	Kampong Cham	143	22.40
	Kampong Chhnang	195	30.50
	Kampong Speu	162	25.40
	Kampot	139	21.80
		Total Participants = 639	

As revealed in Table 2, 639 participants participated in the study, comprising 330 females (51.60%) and 309 males (48.40%). The table shows that 323 participants (50.50%) are aged 41 and over, 217 participants (34.00%) are aged 31-40, and 99 participants

(15.50%) are aged 20-30. Regarding educational attainment, 98 participants (15.30%) have a high school diploma, 442 (69.20%) hold a bachelor's degree, and 99 (15.50%) have a master's degree. Finally, participants are distributed across four provinces: 143 (22.40%) from Kampong Cham, 195 (30.50%) from Kampong Chhnang, 162 (25.40%) from Kampong Speu, and 139 (21.80%) from Kampot.

2.3. Validity and Reliability

Reliability and validity are principles employed to assess the quality of research. They denote the efficacy of a method, methodology, or test in quantifying a specific variable. Reliability pertains to the consistency of a measurement, while validity concerns its accuracy [60], [61], [62].

2.3.1. Validity

Validation procedures were carried out on each and every one of the instruments utilized in this study. That was done to guarantee that the instruments were correct and trustworthy. The assessments of face, construct, and convergence validity concluded that the instruments are reliable and capable of accurately capturing the necessary dimensions of TL. For the additional objective of establishing the validity of the methodologies employed in the study, three scholars who hold doctoral degrees in the pertinent fields were invited as the experts to validate the tools, and they provided excellent scores with minor adjustments that the authors then followed before collecting the data.

2.3.1. Reliability

Table 3. Cronbach's Alpha of DTL Dimensions

Dimensions	No. of Items	Values
Idealized Influence-Attribute (IIA)	4	0.859
Idealized Influence-Behaviors (IIB)	4	0.849
Inspirational Motivation (IMO)	4	0.882
Individual Consideration (ICO)	4	0.824
Intellectual Stimulation (IST)	4	0.849

As presented in Table 3, the Cronbach's alpha values for the five TL dimensions, each of which has four elements. Beginning with IIA, this dimension showed excellent internal consistency with an α of 0.859. With an α of 0.849, IIB came next, indicating comparable dependability. With an α of 0.882, IMO showed the highest level of internal consistency. IST matched IIB with an α of 0.849, while ICO reported a slightly lower α of 0.824. For each TL dimension, all dimensions showed α values over the acceptable cutoff of 0.70. According to Taber [63], the acceptable α value starts from 0.70, indicating consistent and trustworthy assessment across items and respondents.

2.3. Data Analysis

The data analysis for the present study employed a thorough quantitative methodology, encompassing the calculation of means (M) and standard deviations (SD) for

each statement regarding teachers' perceptions of their DTL, alongside using survey and causal-comparative methods. Descriptive statistics were first computed to determine the central tendencies and variability of responses across the five constructs of TL: IIA, IIB, IMO, ICO, and IST. This initial analysis offered insights into teachers' overall perceptions, emphasizing strengths and possibilities for improvement in leadership methods. Subsequently, a causal-comparative analysis was utilized to examine the links between the independent factors—provinces—and the dependent variables generated from the constructs. The study efficiently discovered trends and differences in views among diverse demographic groups by incorporating quantitative methodologies, hence boosting the reliability and validity of the findings. These multiple analytical approaches enhance the knowledge of the relationship between leadership styles and teacher perceptions in the Cambodian educational setting while contributing to the broader discussion on the effects of TL on educational findings.

3. FINDINGS AND DISCUSSION

This section delves into two parts. Those are the findings of the current study, and further discussion is needed to gain a comprehensive understanding.

3.1. Findings

Table 4. Teachers' Perception of Directors' TL

Code	Statements	N	Min	Max	M	SD
IIA (Idealized Influence-Attribute)						
IIA1	My principal instils pride in me for being associated with him/her.	639	2	5	3.71	0.781
IIA2	My principal goes beyond self-interest for the good of the group.	639	2	5	3.78	0.808
IIA3	My principal acts in ways that build my respect for him/her.	639	2	5	3.99	0.900
IIA4	My principal displays a sense of power or confidence.	639	2	5	3.87	0.783
		Sum	2.00	5.00	3.8376	0.68669
IIB (Idealized Influence-Behaviors)						
IIB1	My principal specifies the importance of having a strong sense of purpose.	639	2	5	3.48	0.913
IIB2	My principal considers the moral and ethical consequences of decisions.	639	2	5	3.41	0.896
IIB3	My principal talks about his/her most important values and beliefs.	639	2	5	3.39	0.894
IIB4	My principal emphasizes the importance of having a collective sense of mission.	639	2	5	3.56	0.909
		Sum	2.00	5.00	3.4585	0.74911

Code	Statements	N	Min	Max	M	SD
IMO (Inspirational Motivation)						
IMO1	My principal talks optimistically about the future.	639	1	5	2.77	1.058
IMO2	My principal talks enthusiastically about what needs to be accomplished.	639	1	5	3.23	1.029
IMO3	My principal articulates a compelling vision of the future.	639	1	5	2.80	1.088
IMO4	My principal expresses confidence that goals will be achieved.	639	1	5	2.85	0.896
		Sum	1.25	5.00	2.9120	0.87680
ICO (Individual Consideration)						
ICO1	principal spends time teaching and coaching me.	639	2	5	3.68	0.799
ICO2	My principal treats me as an individual rather than just a group member.	639	2	5	3.76	0.757
ICO3	My principal helps me to develop my strengths.	639	2	5	3.62	0.789
ICO4	My principal considers me as having different needs, abilities, and aspirations from others.	638	2	5	3.54	0.799
		Sum	2.00	5.00	3.6475	0.63565
IST (Intellectual Stimulation)						
IST1	My principal gets me to look at problems from many different angles.	639	2	5	3.64	0.792
IST2	My principal seeks different perspectives when solving problems.	639	2	5	3.57	0.783
IST3	My principal re-examines critical assumptions to question whether they are appropriate.	639	2	5	3.70	0.692
IST4	My principal suggests new ways of looking at how to complete assignments.	639	2	5	4.08	0.739
		Sum	2.00	5.00	3.7488	0.62449

Note: Mean score of 1.00-1.80 = Lowest, 1.81-2.60 = Low, 2.61-3.40 = Moderate, 3.41-4.20 = High, and 4.21-5.00 = Highest

In Table 4, teachers' opinions about their DTL are divided into five areas: IIA, IIB, IMO, ICO, and IST.

In IIA, teachers perceive their directors positively, with a mean score of 3.84 (SD = 0.687). This dimension, with scores ranging from 2.00 to 5.00, shows a favourable perception, particularly in IIA3, where teachers highly respect their directors' actions.

For IIB, teachers' perceptions remain positive, with an overall mean score of 3.46 (SD = 0.749). Teachers particularly value IIB1, where directors emphasize a strong sense of purpose, reflecting an ethical and purposeful approach to leadership. Scores in this dimension range from 2.00 to 5.00, demonstrating a consistent appreciation for values-driven leadership.

In IMO, the mean score is 2.91 (SD = 0.877), indicating a more moderate perception of directors' ability to articulate a compelling vision and inspire enthusiasm. This category has the widest range, with scores from 1.25 to 5.00, reflecting more varied teacher responses regarding directors' optimism and confidence in achieving goals.

Then ICO has a mean score of 3.65 (SD = 0.636), showing that teachers appreciate their directors' attention to individual needs and development. This dimension, with scores ranging from 2.00 to 5.00, indicates that teachers perceive directors as supportive in addressing their unique needs and strengths, especially in ICO2, which emphasizes individualized attention.

Lastly, the mean score in IST is 3.75 (SD = 0.624), suggesting that teachers value their directors' encouragement to view problems from various perspectives and think innovatively. IST4, where directors suggest new task completion methods, is particularly appreciated. Scores in this dimension also range from 2.00 to 5.00, highlighting a consistent recognition of innovative leadership.

The findings suggest that teachers perceive their directors positively across all dimensions, with most mean scores falling within the high category. These findings underscore the importance of DTL in fostering a supportive, motivational school environment where teachers feel valued and inspired by their DTL.

Table 5. LSD Multiple Comparisons of Teachers' Perception of DTL

DV	(I) Province	(J) Province	MD (I-J)	SE	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
IIA	Kampong Cham	Kampong Chhang	0.09697	0.07556	0.200	-0.0514	0.2453
		Kampong Speu	-0.03914	0.07875	0.619	-0.1938	0.1155
		Kampot	0.02910	0.08174	0.722	-0.1314	0.1896
	Kampong Chhang	Kampong Cham	-0.09697	0.07556	0.200	-0.2453	0.0514
		Kampong Speu	-0.13611	0.07296	0.063	-0.2794	0.0072
		Kampot	-0.06787	0.07618	0.373	-0.2175	0.0817
	Kampong Speu	Kampong Cham	0.03914	0.07875	0.619	-0.1155	0.1938
		Kampong Chhang	0.13611	0.07296	0.063	-0.0072	0.2794
		Kampot	0.06825	0.07935	0.390	-0.0876	0.2241
	Kampot	Kampong Cham	-0.02910	0.08174	0.722	-0.1896	0.1314
		Kampong Chhang	0.06787	0.07618	0.373	-0.0817	0.2175
		Kampong Speu	-0.06825	0.07935	0.390	-0.2241	0.0876
IIB	Kampong Cham	Kampong Chhang	0.04942	0.08255	0.550	-0.1127	0.2115
		Kampong Speu	-0.05780	0.08603	0.502	-0.2267	0.1111
		Kampot	-0.02027	0.08930	0.820	-0.1956	0.1551
	Kampong Chhang	Kampong Cham	-0.04942	0.08255	0.550	-0.2115	0.1127
		Kampong Speu	-0.10722	0.07970	0.179	-0.2637	0.0493
		Kampot	-0.06969	0.08323	0.403	-0.2331	0.0937
	Kampong Speu	Kampong Cham	0.05780	0.08603	0.502	-0.1111	0.2267
		Kampong Chhang	0.10722	0.07970	0.179	-0.0493	0.2637
		Kampot	0.03753	0.08668	0.665	-0.1327	0.2077
	Kampot	Kampong Cham	0.02027	0.08930	0.820	-0.1551	0.1956
		Kampong Chhang	0.06969	0.08323	0.403	-0.0937	0.2331
		Kampong Speu	-0.03753	0.08668	0.665	-0.2077	0.1327

IMO	Kampong Cham	Kampong Chhang	0.24231*	0.09624	0.012	0.0533	0.4313
		Kampong Speu	0.08321	0.10030	0.407	-0.1138	0.2802
		Kampot	0.14458	0.10412	0.165	-0.0599	0.3490
	Kampong Chhang	Kampong Cham	-0.24231*	0.09624	0.012	-0.4313	-0.0533
		Kampong Speu	-0.15909	0.09293	0.087	-0.3416	0.0234
		Kampot	-0.09773	0.09704	0.314	-0.2883	0.0928
	Kampong Speu	Kampong Cham	-0.08321	0.10030	0.407	-0.2802	0.1138
		Kampong Chhang	0.15909	0.09293	0.087	-0.0234	0.3416
		Kampot	0.06136	0.10107	0.544	-0.1371	0.2598
	Kampot	Kampong Cham	-0.14458	0.10412	0.165	-0.3490	0.0599
		Kampong Chhang	0.09773	0.09704	0.314	-0.0928	0.2883
		Kampong Speu	-0.06136	0.10107	0.544	-0.2598	0.1371
ICO	Kampong Cham	Kampong Chhang	0.14767*	0.06989	0.035	0.0104	0.2849
		Kampong Speu	0.11317	0.07284	0.121	-0.0299	0.2562
		Kampot	0.09198	0.07561	0.224	-0.0565	0.2405
	Kampong Chhang	Kampong Cham	-0.14767*	0.06989	0.035	-0.2849	-0.0104
		Kampong Speu	-0.03450	0.06749	0.609	-0.1670	0.0980
		Kampot	-0.05569	0.07047	0.430	-0.1941	0.0827
	Kampong Speu	Kampong Cham	-0.11317	0.07284	0.121	-0.2562	0.0299
		Kampong Chhang	0.03450	0.06749	0.609	-0.0980	0.1670
		Kampot	-0.02119	0.07340	0.773	-0.1653	0.1229
	Kampot	Kampong Cham	-0.09198	0.07561	0.224	-0.2405	0.0565
		Kampong Chhang	0.05569	0.07047	0.430	-0.0827	0.1941
		Kampong Speu	0.02119	0.07340	0.773	-0.1229	0.1653
IST	Kampong Cham	Kampong Chhang	0.06177	0.06875	0.369	-0.0732	0.1968
		Kampong Speu	0.01963	0.07165	0.784	-0.1211	0.1603
		Kampot	0.12089	0.07437	0.105	-0.0252	0.2669
	Kampong Chhang	Kampong Cham	-0.06177	0.06875	0.369	-0.1968	0.0732
		Kampong Speu	-0.04214	0.06638	0.526	-0.1725	0.0882
		Kampot	0.05912	0.06931	0.394	-0.0770	0.1952
	Kampong Speu	Kampong Cham	-0.01963	0.07165	0.784	-0.1603	0.1211
		Kampong Chhang	0.04214	0.06638	0.526	-0.0882	0.1725
		Kampot	0.10126	0.07219	0.161	-0.0405	0.2430
	Kampot	Kampong Cham	-0.12089	0.07437	0.105	-0.2669	0.0252
		Kampong Chhang	-0.05912	0.06931	0.394	-0.1952	0.0770
		Kampong Speu	-0.10126	0.07219	0.161	-0.2430	0.0405

**. The mean difference is significant at the 0.05 level*

Note: DV = dependent variable, MD = mean difference, SE = standard deviation error.

Table 5 provides LSD multiple comparisons of teachers' perceptions of DTL across four Cambodian provinces: Kampong Cham, Kampong Chhnang, Kampong Speu, and Kampot. The analysis spans five TL dimensions: IIA, IIB, IMO, ICO, and IST, identifying significant and non-significant differences among provinces within each dimension.

For IIA, no significant difference was found with all Sig. values above 0.05. The highest MD was between Kampong Chhnang and Kampong Speu (MD = -0.13611, SE = 0.07296, Sig. = 0.063), close to significance but not reaching it, suggesting similar perceptions of IIA across provinces.

In IIB, no comparisons between provinces were significant, as all Sig. values exceeded 0.05. The greatest MD was between Kampong Chhnang and Kampong Speu (MD = -0.10722, SE = 0.07970, Sig. = 0.179), reflecting similar perceptions of IIB across the four provinces.

For IMO, one significant difference was noted. Teachers in Kampong Cham had a significantly higher perception of IM than those in Kampong Chhnang (MD = 0.24231, SE = 0.09624, Sig. = 0.012; 95% CI: 0.0533 to 0.4313). Other comparisons, including Kampong Cham with Kampong Speu and Kampot, showed no significant differences.

In ICO, a significant difference was observed between Kampong Cham and Kampong Chhnang (MD = 0.14767, SE = 0.06989, Sig. = 0.035), indicating that teachers in Kampong Cham perceived higher levels of IC than those in Kampong Chhnang. The remaining comparisons in this dimension were non-significant.

For IST, no significant difference was found with all Sig. values above 0.05. The largest MD was between Kampong Cham and Kampot (MD = 0.12089, SE = 0.07437, Sig. = 0.105), though not significant. This indicates similar perceptions of IST across provinces.

In summary, while most TL dimensions showed no significant differences between provinces, notable findings in IMO and ICO indicate that teachers in Kampong Cham perceived higher levels in these dimensions than those in Kampong Chhnang. These findings suggest that specific TL dimensions may vary slightly by provincial context, potentially reflecting differences in leadership practices or expectations.

3.2. Discussion

The current study included a varied group of participants, featuring an equitable gender distribution and a majority aged 41 and above. Most possessed a bachelor's degree, although a lesser segment held either a high school diploma or a master's degree. Four provinces distributed the participants, indicating regional representation. Examining educators' perspectives on DTL revealed predominantly positive opinions across all dimensions, with notable disparities primarily in IMO and ICO. Teachers in one province reported elevated levels of these qualities relative to another, suggesting varied experiences of leadership efficacy contingent upon provincial context. Most measures exhibited uniform perceptions, indicating a shared comprehension of DTL across provincial educators.

3.2.1. Teachers' Perception of DTL

The findings suggest a generally positive perception of DTL across all five dimensions: IIA, IIB, IMO, ICO, and IST. In IIA, teachers view their directors as ethical role models, demonstrating integrity and garnering respect. The finding is similar to Day et al. [64], who noted that this perception reflects the value teachers place on directors who lead by example and uphold high standards, fostering a sense of security and motivation within the school environment.

In IIB, teachers appreciate directors' strong sense of purpose and ethical approach, highlighting the significance of values-driven leadership. This finding might be aligned with Pankake and Abrego [65], who noted TLs' principles, as teachers value leaders who exhibit clear, ethical direction, building a foundation of trust and shared purpose.

IMO, however, reflects more variability, suggesting that while some teachers feel inspired by their directors' vision, others may find a lack of clarity or enthusiasm. As this range highlights, directors could enhance their abilities to articulate goals and foster enthusiasm by incorporating more motivational practices and clearer goal-setting.

ICO reveals a positive view of directors' attentiveness to individual teacher's needs and professional growth. Teachers feel supported by directors who offer individualized attention, contributing to a nurturing and inclusive atmosphere. According to Blasé and Blase [66], directors can encourage teachers to grow in their unique strengths by fostering individual development and strengthening morale.

In IST, teachers appreciate directors' encouragement of innovative thinking and problem-solving, which align with adaptive leadership practices. Appreciating directors' suggestions for new approaches highlights teachers' receptiveness to creative educational methods. Madi Odeh [67] noted that directors who emphasize intellectual growth and adaptability contribute positively to a dynamic school culture.

Overall, teachers hold favourable views of their DTL, finding that such leadership supports a motivating, supportive, and growth-oriented environment. Strengthening IMO could further enhance alignment with school goals, creating a more cohesive and inspired teaching community. These insights affirm the role of TLs in fostering an environment where teachers feel valued, motivated, and well-supported by their directors.

3.2.2. Teachers' Perception of DTL from Various Provinces

The LSD multiple comparisons reveal generally consistent perceptions of DTL across the four provinces, with minor provincial differences in IMO and ICO.

For IIA, perceptions are similar across provinces, with no significant differences observed. The highest MD between Kampong Chhnang and Kampong Speu was close to significance but ultimately not significant, indicating comparable views of directors' ethical attributes in each province.

In IIB, all comparisons yielded non-significant findings, underscoring a uniform perception of directors' values-driven leadership across the provinces. The greatest MD observed was between Kampong Chhnang and Kampong Speu, reflecting similar values and a sense of purpose among directors as perceived by teachers.

In IMO, teachers in Kampong Cham hold significantly higher perceptions than those in Kampong Chhnang, suggesting that directors in Kampong Cham may be perceived as more effective in inspiring and articulating a vision. However, comparisons between Kampong Cham and other provinces showed no significant differences, indicating that the variance in IMO is primarily between Kampong Cham and Kampong Chhnang.

For ICO, a significant difference emerged between Kampong Cham and Kampong Chhnang, with teachers in Kampong Cham perceiving greater individualized attention from their directors. This finding suggests that teachers in Kampong Cham may feel their unique needs are more acknowledged compared to those in Kampong Chhnang, though other provincial comparisons did not reveal significant differences.

In IST, perceptions are consistent across provinces, with no significant differences noted. Although Kampong Cham and Kampot showed the highest MD, it was insignificant, indicating comparable encouragement of innovative thinking in each province.

While most TL dimensions show no significant provincial differences, notable differences in IMO and ICO suggest that teachers in Kampong Cham perceive higher levels in these areas than those in Kampong Chhnang. These findings imply that certain aspects of TL, such as vision articulation and individualized support, may vary slightly by provincial context, possibly due to differing leadership practices or regional expectations. The finding implication is similar to Karakose et al. [51], Karakose et al. [52], and Karakose et al. [53].

4. CONCLUSION

This study's findings highlight teachers' predominantly favourable impressions of their DTL across multiple dimensions, reflecting a significant respect for the leadership inside their schools. Most aspects, particularly IIA and IIB, received positive assessments, indicating that teachers acknowledge and appreciate their directors' ethical and purpose-oriented characteristics. Nonetheless, notable disparities in views of IMO and ICO underscore the varied experiences of teachers across distinct provincial contexts. Teachers in some regions indicated elevated levels of felt motivation and personalized support from their directors, implying that leadership efficacy may differ according to regional characteristics, such as cultural norms and leadership methodologies.

The discrepancies in perceptions underscore the necessity of customizing leadership strategies to address the distinct requirements of educators in particular circumstances. Comprehending these local dynamics can equip directors to refine their leadership tactics, cultivating a more supportive and empowered atmosphere for educators. This study's findings underscore the essential role of DTL in fostering a stimulating environment that promotes teacher development and satisfaction. Given that teacher views and experiences significantly influence educational outcomes, this research underscores the need for continuous professional development and support for school leaders to enhance their DTL practices across all provinces.

Finally, it is recommended that future studies expand the number of participants and conduct research in provinces other than the four provinces included in the current study. Qualitative designs and combined designs are also recommended.

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