Quantitative data analysis

CHAPTER FOUR: ANALYSIS AND DISCUSSION OF THE FINDINGS

4.1 Introduction

The data analysis and discussion chapter presents the analyzed and discussed findings from the study. The findings include quantitative and qualitative results. Data was collected using the SILL questionnaire; therefore, the sections of the quantitative results are consistent with the parts of the SILL questionnaire. The main sections of this chapter include response rate, diagnostic tests, respondents' demographics characteristics, descriptive analysis (for direct and indirect language learning strategies), and differences in gender regarding the utilization the language learning strategies.

4.2 Response Rate

The researcher targeted a total of 80 respondents, who would include the business subject students studying in Malaysian polytechnics. However, a total of 90 students had participated in the study by the end of the data collection period. This translated to a 112.5% turnout, which exceeded the expected response rate. Given that all responses did not have any outliers or missing values, the researcher progressed to data analysis.

4.3 Diagnostic Tests

The dataset was tested for normality using Kolmogorov-Smirnov and Shapiro-Wilk tests. The results from the test are shown as per table 4.1 below.

Table 4.1: Tests of Normality

	Kolmogorov-Smirnova			**Shapiro-Wilk**		
	Statistic	df	Sig	Statistic	df	Sig.
Memory	.091	90	.066	.979	90	.163
Cognitive	.093	90	.054	.964	90	.014
Compensation	.076	90	.200*	.979	90	.154
Metacognitive	.092	90	.059	.966	90	.019
Affective	.070	90	.200*	.973	90	.054
Social	.088	90	.085	.954	90	5.537

(Source: Survey data, 2021).

Based on table 4.1 above, all the significance values are greater than 0.05 ($p>0.05$). This means that the null hypotheses regarding normal distribution of data cannot be rejected. Hence, the datasets for memory, cognitive, compensation, metacognitive, affective, and social language learning strategies are normally distributed. Similarly, the Shapiro-Wilk test for normality revealed that the memory, compensation, and affective variables have significance values greater than 0.05 ($p>0.05$), confirming than

the dataset follows a normal distribution. However, cognitive, metacognitive, and social constructs have significance values greater than 0.05, implying that the datasets are not normally distributed from the mean.

4.4 Respondents' Demographic Characteristics

The demographics characteristics considered in this study included gender and semester. Based on the findings from the study, there were more females than males participating in the study, as shown in figure 1 below.

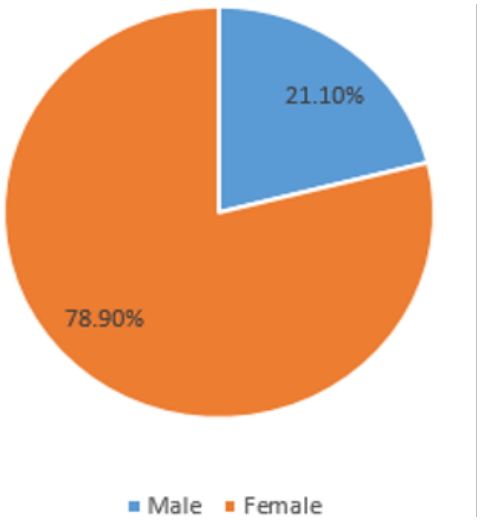

Figure 1: Gender (Source: Survey data, 2021).

The difference between the proportion of females and males is 57.8%. The high number of females participating in the study implies that the results indicated in this study were mostly from females. Moreover, the analysis of the semester that each responded was in revealed that majority of the students were at their third semester, as illustrated in figure 4.2 below.

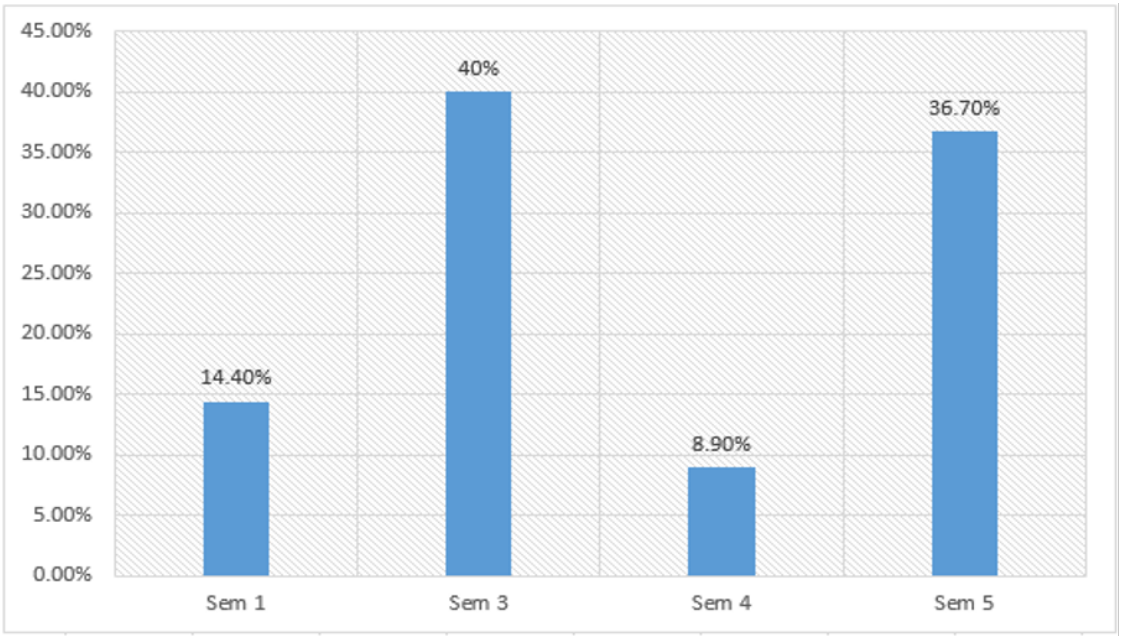

Figure 4.2: Respondents' semester (Source: Survey data, 2021).

There was no participant in the second semester. The greatest number of respondents were at the third semester (40%), followed by those who were at the fifth semester (36.7%) and least were in the fourth semester (8.9%).

4.5 Descriptive Analysis

Descriptive analysis presents findings for the mean and standard deviation for each variable as calculated based on each component of the variable. The results show the highest values generated from the responses that each participant chose from the Likert scale options of the SILL questionnaire. The results are grouped into direct language learning strategies and indirect language learning strategies, with each type of strategy having three constructs. Each construct contained varied numbers of items that the respondents were required to rate the extent to which they true or untrue regarding their personal language learning strategies. The SILL questionnaire rating scale used in the data has five levels, which include 1-never or almost never true, 2-usually not true, 3-somewhat true of me, 4-usually true of me, and 5-always or almost always true of me.

4.5.1 Direct Language Learning Strategies

Under the SILL questionnaire, direct language learning strategies are grouped into three constructs, namely, memory, cognitive, and compensation. Each construct was analyzed separately as an independent variable that make up a language learning strategy.

4.5.1.1 Memory Learning Strategies

Memory learning strategies are instrumental learners to store and retrieve information when required for use (Arellano, 2017; Kobayashi & Little, 2018). Previous studies have focused on how memory learning strategized in ESL contexts and findings have shown that female students tend to apply them more compared to male students (Mahmud et al., 2018). Proportions, means, and standard deviations for memory strategy for language learning was executed and findings from the study presented using table 4.2 below.

Table 4.2: Descriptive analysis for memory language learning strategies.

Part A	Item Number	1	2	3	4	5	Mean	Std. Dev
	1	1.1%	2.2%	16.7%	54.4%	25.6%	4.01	.786
	2	2.2%	6.7%	25.6%	40%	25.6%	3.80	.974
	3	1.1%	5.6%	32.2%	28.9%	32.2%	3.86	.978
	4	2.2%	8.9%	24.4%	42.2%	22.2%	3.73	.981
	5	3.3%	11.1%	35.6%	30%	20%	3.52	1.041
	6	7.8%	16.7%	38.9%	28.9%	7.8%	3.12	1.037
	7	5.6%	11.1%	32.2%	31.1%	20%	3.49	1.104
	8	4.4%	8.9%	34.4%	33.3%	18.9%	3.53	1.041
	9	1.1%	6.7%	32.2%	34.4%	25.6%	3.77	.949
	Aggregates						**3.6481**	**0.71665**

(Source: Survey data, 2021)

Table 4.2 shows that most of the large percentages are concentrated on numbers 3 and 4 of the rating scale. This means that most of the respondents' choices were somewhat true of them (3) or usually true of them (4). The aggregate mean for the responses is 3.648; rounding this figure to the nearest whole number becomes 4, which stands for usually true of me according to the SILL questionnaire key. The results imply that they usually apply most of the memory learning strategies. The standard deviation of 0.7899 implies that the responses were characterized by low variability.

Language learning strategies related to memory include creating mental linkages, applying images and sounds, and properly reviewing what has been learned (Oxford, 1990). Consistently, Najm and Kareem (2021) identified memory leaning strategies as effective language learning approaches because they enable learners to remember the concepts that they have been taught. Although memory learning strategies have been consistently criticized for promoting rote-learning, Alhaysony (2017) argues that enabling learners to memorize what they have been taught is a foundational milestone towards effective learning. Despite this, the role played by memory strategies in storing and retrieving information when required cannot be understated (Ayachi, 2018). The memory is a crucial tool for processing information during the language learning process.

4.5.1.2 Cognitive Learning Strategies

The construct cognitive learning strategies has 14 items. Based on the responses from the study, the frequencies, means, and standard deviations were computed and presented using table 4.3 below.

Table 4.3: Descriptive analysis for cognitive language learning strategies

Part B	Item Number	1	2	3	4	5	Mean	Std. Dev
	10	1.1%	3.3%	35.6%	34.4%	25.6%	3.80	.902
	11	3.3%	4.4%	26.7%	40%	25.6%	3.80	.985
	12	2.2%	1.1%	25.6%	36.7%	34.4%	4.00	.924
	13	3.3%	6.7%	27.8%	38.9%	23.3%	3.72	1.006
	14	5.6%	18.9%	37.8%	24.4%	13.3%	3.21	1.076
	15	1.1%	7.8%	24.4%	28.9%	37.8%	3.94	1.021
	16	2.2%	11.1%	35.6%	32.2%	18.9%	3.54	.996
	17	3.3%	16.7%	30%	31.1%	18.9%	3.46	1.083
	18	3.3%	5.6%	37.8%	31.1%	22.2%	3.63	.999
	19	4.4%	7.8%	26.7%	36.7%	24.4%	3.69	1.067
	20	3.3%	10%	31.1%	41.1%	14.4%	3.53	.974
	21	2.2%	1.1%	28.9%	45.6%	22.2%	3.84	.860
	22	7.8%	14.4%	33.3%	30%	14.4%	3.29	1.124
	23	4.4%	11.1%	33.3%	34.4%	16.7%	3.48	1.041
	Aggregates						**3.639**	**1.004**

(Source: Survey data, 2021)

Similar to memory language learning strategies, the results presented in table 4.3 show that most of the large percentages are concentrated on numbers 3 and 4 of the rating scale. Thus, most of the respondents viewed that the statements for cognitive learning strategies are somewhat true to them or usually true to them. Consistent with the previous studies by Suran and Yunus (2016) and Alsowat (2017), the results confirmed that learners of English for specific purposes tend to say or write new English words several times, try to identify patterns in English, and make attempts to translate word-for-word. The aforementioned actions are relevant to cognitive learning strategies (Khasawneh, 2021; Shi, 2017). The aggregate mean for the responses was 3.689; the value lies between 3.5 and 4.4, which stands for ‘usually used’ as per the Oxford’s (1990) scale. Moreover, rounding off 3.869 to the nearest number becomes 4, which as per the key stands for ‘usually true of me’, meaning that the statements depicting cognitive language learning strategies are true of majority of the students specializing in business courses in Malaysian polytechnics.

4.5.1.3 Compensation Learning Strategies

Similar to memory and cognitive language learning strategies, the proportions, means and standard deviations for the construct was computed and the results presented using table 4.4 below.

Table 4.4: Descriptive analysis for compensation language learning strategies

Part C	Item Number	1	2	3	4	5	Mean	Std. Dev
	24	2.2%	6.7%	31.1%	40%	20%	3.69	.944
	25	2.2%	8.9%	36.7%	33.3%	18.9%	3.58	.971
	26	10%	7.8%	34.4%	31.1%	16.7%	3.37	1.156
	27	11.1%	10%	43.3%	23.3%	12.2%	3.16	1.121
	28	5.6%	7.8%	28.9%	38.9%	18.9%	3.58	1.060
	29	-	7.8%	22.2%	50%	20%	3.82	.842
	Aggregates						**3.533**	**0.76188**

(Source: Survey data, 2021)

Closer scrutiny of table 4.4 above shows that most of the larger proportions are concentrated in the columns for 4 and 5; hence, most of the students found that the statements that depict compensation language strategies are somewhat true of them and usually true of them. This is similarly reflected by the aggregate mean that lies between 3.5 and 4.4, which stands for ‘usually used’. When 3.533 is rounded off to the nearest whole number, it becomes 4; means that compensation strategies are usually used by majority of the students pursuing business courses in Malaysian polytechnics. While not many studies had previously specifically concentrated on compensation language learning strategies, studies such as Syafryadin et al. (2020) and Parmis et al. (2020) that concentrated on direct language learning strategies where compensation strategies are part and parcel revealed language learners were becoming increasingly committed to understanding understand unfamiliar English words by making guesses, using gestures to reflect words during conversations, and phrases that means the same thing as particular English words.

4.5.2 Indirect Language Learning Strategies

Based on the SILL questionnaire developed by Oxford (1990), indirect language strategies include metacognitive, affective, and social strategies (Syafryadin, 2020; Habók & Magyar, 2018). Descriptive analysis involved using the dataset to calculate the proportions, means, and standard deviations for each strategy for purposes evaluating the extent to which each of the indirect language learning strategy is utilized in Malaysian polytechnics.

4.5.2.1 Metacognitive Learning Strategies

Metacognitive language learning strategies were measured to determine the extent their usage within the polytechnic context in Malaysia. The response pattern for the metacognitive language strategies revealed that selection of higher values (3, 4 and 5) students increased compared to the direct language learning strategies.

Table 4.5: Descriptive analysis for metacognitive language learning strategies

Part D	Item Number	1	2	3	4	5	Mean	Std. Dev
	30	-	3.3%	27.8%	41.1%	27.8%	3.93	.832
	31	2.2%	2.2%	23.3%	38.9%	33.3%	3.99	.930
	32	2.2%	1.1%	20%	35.6%	42.2%	4.10	.900
	33	1.1%	1.1%	20%	35.6%	42.2%	4.17	.864
	34	4.4%	13.3%	38.9%	26.7%	16.7%	3.38	1.056
	35	2.2%	7.8%	27.8%	37.8%	24.4%	3.74	.989
	36	-	5.6%	31.1%	36.7%	26.7%	3.84	.886
	37	-	7.8%	27.8%	21.1%	41.1%	3.84	.923
	38	1.1%	3.3%	21.1%	41.1%	33.3%	4.02	.887
	Aggregates						**3.8914**	**0.73815**

(Source: Survey data, 2021)

As detailed in table 4.5 above, most of the highest proportions are concentrated in the column for the value 4, which stand for ‘usually true of me’ and 5 (always or almost always true of me). The metacognition learning strategy scored the highest aggregated mean compared to all the three constructs for direct language learning strategies. The aggregate mean of 3.89 lies between 3.5 and 4.4, which is interpreted as the strategy is usually used and can be rounded off to the nearest whole number to depict that most of the business students pursuing business courses in the Malaysian polytechnics found the SILL questionnaire statement usually true of them. A standard deviation of less than one (0.919) implies that there was a low variability in the findings. The prevalence of metacognitive language learning strategy in ESL contexts was identified by Hashim et al. (2018) in their study that focused on comparing on the utilization of direct and indirect language learning strategies.

4.5.2.2 Affective Learning Strategies

Although affective strategies were prevalent in the Malaysian polytechnics context, their prevalence was not as much as metacognitive language strategies. Table 4.6 below provides a detailed

Part E	Item Number	1	2	3	4	5	Mean	Std. Dev
	39	6.7%	3.3%	18.9%	42.2%	28.9%	3.83	1.094
	40	3.3%	1.1%	22.2%	43.3%	30%	3.96	.935
	41	3.3%	8.9%	34.4%	32.2%	21.1%	3.59	1.027
	42	-	6.7%	36.7%	31.1%	25.6%	3.76	.916
	43	14.4%	11.1%	36.7%	22.2%	15.6%	3.13	1.238
	44	8.9%	10%	31.1%	28.9%	21.1%	3.43	1.190
	Aggregates						**3.6167**	**0.76700**

(Source: Survey data, 2021)

Most of the students seemed to have selected options 4 and 5, which indicate 'somewhat true of me' and 'usually true of me'. The aggregate mean of 3.617 lies between 3.5 and 4.4 (usually used), indicating that the strategy is usually used. Additionally, the standard deviation of 0.76700 indicates that there was a low variability in the responses as provided by the respondents. Similar to other strategies, previous studies have investigated affective strategies in conglomerate of indirect language learning strategies.

Studies have confirmed that affective language learning strategies in ESL classrooms are characterized by learners giving themselves a treat when they have done well in English as a way of rewarding self (Lee & Heinz, 2016; Bai, 2018), sharing their pleasures of English mastery to their significant others (Habók et al., 2021; Pawlak, 2019), and writing down their feelings and attitudes towards language learning on a daily basis (Mandasari & Oktaviani, 2018). The core focus of affective language learning strategies is evaluating the extent to which learners develop likeness for English learning.

4.5.2.3 Social Learning Strategies

Social learning strategies for English focus on the collaboration endeavors in English acquisition. Results from the study ranked social learning strategies second after metacognitive learning strategies. Table 4.7 below provides further details of this analysis.

Table 4.7: Descriptive analysis for social language learning strategies

Part F	Item Number	1	2	3	4	5	Mean	Std. Dev
	45	1.1%	3.3%	22.2%	33.3%	40%	4.08	.927
	46	3.3%	5.6%	23.3%	34.4%	33.3%	3.89	1.043
	47	2.2%	4.4%	27.8%	34.4%	31.1%	3.88	.981
	48	3.3%	6.7%	32.2%	27.8%	30%	3.74	1.066
	49	5.6%	11.1%	33.3%	24.4%	25.6%	3.53	1.153
	50	4.4%	6.7%	32.2%	36.7%	20%	3.61	1.024
	Aggregates						**3.788**	**0.84424**

(Source: Survey data, 2021)

In addition to the aggregate mean being too close to 4 (3.788~4), most of the larger proportions are found in columns 3, 4 and 5. What this means is that most of the students specializing in business courses found the statements for social language learning strategies somewhat true to them (3), usually true of them, and always or almost always true of them. The mean lies between 3.5 and 4.4, which implies that social learning strategies are usually used in learning English as a foreign for specific purposes in the Malaysian polytechnics. Although the standards deviation less than one (0.84424) indicates a low variability in the responses, the study exhibited consistency with the findings from previous studies, which had ascertained that most of the students pursuing business courses in the Malaysian polytechnics tend to ask communicating partners to slow down or repeat whenever they fail to understand something, ask their English speakers to correct them when they make mistakes in the communication process, and make efforts to understand and appreciate nature English speakers' culture (Macaro, 2004; Naaim & Hashim, 2019). Thus, social learning strategies were are the second most preferred for learning English as a second language in the Malaysian polytechnics.

4.6 Ranking the English Language Learning Strategies

The current study sought to analyze the two categories of language learning strategies, which included direct and indirect language learning strategies. Findings from the study revealed that the learning strategies scored different mean values, which can be used to rank the utilization of each learning in the Malaysian polytechnic context. Table 4.8 below shows each learning and its rank.

Table 4.8: The ranks for learning strategies as used in the Malaysian polytechnics

Part F	N	Minimum	Maximum	Mean	Rank	Std. Deviation
Memory	90	1.56	5.00	3.6481	3	.71665
Cognitive	90	1.00	5.00	3.6389	4	.74803
Compensation	90	1.33	5.00	3.5315	6	.76188
Metacognitive	90	1.78	5.00	3.8914	1	.73815
Affective	90	1.83	5.00	3.6167	5	.76700
Social	90	1.00	5.00	3.7889	2	.84424

Source: Survey data, 2021)

Metacognitive learning strategies scored the highest mean value (3.8914). Most of the students said that they use metacognitive language learning strategies to learn English in polytechnics in Malaysia. The prevalence of metacognitive language learning strategies elicits interest to inquire further as to what actually transpires during metacognition. According to Zhang and Lynch (2021), students using metacognitive learning strategies try to find as many ways as they can to use English. Additionally, metacognitive learning is founded on paying attention when an English speaker is communicating, actively looking for people with which a learner can talk to using the English language, and having clear goals for improving the English language usage skills (Garita & Sánchez, 2021; Guapacha Chamorro & Benavidez Paz, 2017). A study by Rongdara et al. (2019) further confirmed that metacognition learning strategies tend to prevail among the Thai and Malaysian higher education students with memory strategies being rarely used. Thus, students pursuing business courses in the Malaysian polytechnics expressed that they successfully embraced metacognition in the English language process.

Social learning strategies came second with a mean value of 3.7889 and memory learning strategies third with a mean of 3.6481. This shows that most of the indirect learning strategies were more prevalent among the business courses students in the Malaysian polytechnics. Social learning strategies involve involving other students in practicing English usage and asking help from speakers who have perfected the use of English language as a medium of communication. Metacognitive language learning strategies seems to provide for opportunities for students to learn collaboratively, indicating that business students in the Malaysian polytechnics prefer learning strategies that provide for social learning. Based on the tenets of the sociocultural theory by Vygotsky, depending on more knowledgeable others enhances the quality of learning (Newman, 2018; Slim & Hafedh, 2019). Metacognition and social learning theories are reflective of the social learning, which is a crucial component of the concepts of scaffolding and the Zone of Proximal Development (ZPD).

Indirect language learning strategies were previously applauded for enhancing English learning due

to their ability to institute relationship creation and collaboration in the learning process. Xiao and Lynch (2017) viewed that indirect learning strategies ensures effective coordination of the learning process, regulate emotions, and allow teamwork in learning, which cumulatively helps to minimize learners' anxiety. Studies such as Habok and Magyar (2018) and Lee and Heinz (2016) boldly defended the dependability of indirect learning strategies for effective learning of English as a second language. although social learning strategies was rated low in this study, Habok et al. (2021) had found that Mongolian and Chinese students apply affective strategies to enhance English learning as a second language. The differences can be explained by varied cultural, linguistic, and educational backgrounds that characterise students in different countries.

4.7 Gender Differences in the Utilization Direct and Indirect Learning Strategies

It was important to evaluate the differences in the utilization of the direct and indirect language learning strategies. The computations were executed and the results represented using table 4.8 below.

Table 4.8: Gender differences in the utilization direct and indirect learning strategies

		N	Mean	Std. Deviation	Std. Error Mean
Memory	Male Female	19 71	3.4211 3.7089	.72348 .70757	.72348 .70757
Cognitive	Male Female	19 71	3.3759 3.7093	.78059 .72866	.17908 .08648
Compensation	Male Female	19 71	3.2719 3.6009	.77022 .74986	.17670 .08899
Metacognitive	Male Female	19 71	3.7368 3.9327	.72028 .74239	.16524 .08811
Affective	Male Female	19 71	3.3596 3.6854	.83567 .73870	.19172 .08767
Social	Male Female	19 71	3.5000 3.8662	.88715 .82164	.20353 .09751

(Source: Survey data, 2021).

The group statistics in table 4.8 above shows mean and standard differences between males and females in the utilization of direct and indirect language learning strategies. It was evident from the study males tended to use memory strategies more than females. The mean for males was 3.4211 while that of females was 3.7089. What this means is that memory learning strategies were somewhat true to most of the males while they were usually true of most females. The orientation of females towards memorization was ascertained by Alhaysony (2017) in their study that intended to investigate different learning strategies for males and females, although adoption of memory language learning strategies was found to be lower

compared to cognitive, metacognitive, and compensation language learning strategies.

Similarly, the aggregate mean values for the utilization of other direct and indirect learning strategies, including cognitive (mean for males=3.3759, mean for females=3.7089) and compensation (mean for males=3.1719, mean for females=3.7093) language learning strategies are lower for men compared to females. The same trend is observed for indirect learning strategies given that females' aggregate means surpassed those of males for metacognitive, affective and social learning strategies. Using Oxford's (1990) key, most males pursuing business courses in the Malaysian polytechnics found the statements for language learning strategies mostly somewhat true of them while females found the statements usually true of them. However, the mean values lie between 3.5 and 4.4, which implies both male and female students usually use all the six language learning strategies to learn English for specific purposes. Findings from the study by Okyar (2021) revealed that there are significant difference between males and males with respect to the utilization of memory, cognitive, compensation, and social strategies evidenced by females students having higher total mean scores for each learning strategy compared to their male counterparts.

Previous research has shown that language learning strategies adopted to learn English may differ between males and females, but the differences are not significantly significant. For example, Alhaysony (2017) found out that males were more attuned to the utilization of the memory learning strategies, but the differences were not statistically significant. Similarly, the results from this study showed that there are no statistically significant in the utilization of the direct and indirect language strategies between males and females. Table 4.9 below shows that all the significant values for the six English language learning strategies are greater than 0.05 ($p>0.05$).

Table 4.9: Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Memory	Equal variances assumed	.050	.824	-1.568	88	.121	-.28787	.18361	-.65275	.07702
	Equal variances not assumed			-1.548	27.924	.133	-.28787	.18601	-.66894	.09321
Cognitive	Equal variances assumed	.126	.724	-1.568	88	.121	-.28787	.18361	-.65275	.07702
	Equal variances not assumed			-1.548	27.924	.133	-.28787	.18601	-.66894	.09321
Compensation	Equal variances assumed	.044	.834	-1.689	88	.095	-.32901	.19477	-.71608	.05806
	Equal variances not assumed			-1.663	27.829	.108	-.32901	.19785	-.73439	.07637
Metacognitive	Equal variances assumed	.079	.779	-1.028	88	.307	-.19587	.19060	-.57464	.18291
	Equal variances not assumed			-1.046	29.084	.304	-.19587	.18726	-.57882	.18709
Affective	Equal variances assumed	.886	.349	-1.661	88	.100	-.32580	.19619	-.71567	.06408
	Equal variances not assumed			-1.545	26.022	.134	-.32580	.21081	-.75910	.10751
Social	Equal variances assumed	.038	.846	-1.697	88	.093	-.36620	.21579	-.79504	.06265
	Equal variances not assumed			-1.623	26.848	.116	-.36620	.22568	-.82938	.09698

(Source: Survey data, 2021)

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The results from the study confirm that gender does not significantly affect the use of each of the six language learning strategies. While some of the studies such as Alhaysony (2017) did not find significant differences in regard to the usage of language learning strategies, others as Okyar (2021) have shown statistically significant differences in using certain language learning strategies. The reasons for this could be explained by the cultural orientations of the contexts in which the specific studies are conducted (Byram & Wagner, 2018). For example, studies conducted in collectivist contexts may show higher scores for metacognitive and social learning strategies while those from contexts characterized by individualistic national cultures may show prevalence of memory and cognitive language strategies.

4.8 Summary

This chapter has presented an analysis and discussion of the findings from the study. The data was collected from a sample of 90 students pursuing business courses in Malaysian polytechnics. Most of the students were females currently in their third semester. The analysis of the six language strategies showed that the Malaysian polytechnic students usually use all the six language learning strategies to learn English for specific purposes, but indirect language learning strategies were more prevalently used than direct language learning strategies. However, metacognitive learning is the most prevalent strategy followed by the social language learning while the least preferred strategy is compensation learning strategy. Gender does not significantly affect the adoption the direct and indirect learning strategies.

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