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A Study of Perception and Capability to Undertake Action Research Among Lecturers at a Polytechnic in Sarawak

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Abstract: This study aims to survey the perception and capability of lecturers in a polytechnic in Sarawak to undertake action research. It is conducted among 39 lecturers from the General Studies Department. The findings of this study show that the lecturers perceived that doing action research involved a lot of time, it can be done at minimum expense and action research can build trustworthiness or reliability. Besides, doing action research requires an effort and guidance is needed in doing action research, especially for novice lecturer-researchers. In terms of capability, most lecturers can distinguish the different parts of action research and able to cite authors appropriately. However, some lecturers are not familiar with the MLS and APA formats. It was also found that most lecturers conducted action research for their professional growth. The study recommended several implications for institutional administrators to enhance polytechnic lecturers' abilities in conducting action research.

Keywords: Research Perception, Research Capability, Action Research

1. Introduction

Research is an exploration of shared learning. Conducting a research means looking for more information about something, comprehend more, conduct a comprehensive study or investigate further. In addition, a research is also carried out to test the idea of the series and some aspects of the operation of this nature. Without evidence, one cannot declare a method that is better or worse than other methods. In the world of education, the educators are always trying to improve the quality of research methods in the implementation of professional practice. As a result, research in education has five main objectives, namely, to predict, correct, explain, describe and solve problems.

In education, educators should be skilled in forecasting and predicting the performance of a pedagogical activity. This is an important skill to help educators in determining the level or levels to be taught to students. Action research is a method that can help in predicting the pattern of student learning and it should be carried out using the disciplines that have been specified in the conduct of the study.

Action research can be defined as "inquiry or research in the context of focused efforts to improve the quality of an organization and its performance. It typically is designed and conducted by practitioners who analyze the data to improve their own practice" [1]. In the education context, action research can be referred to "a disciplined inquiry done by a teacher with the intent that the research will inform and change his or her practices in the future" [2].

2. Advantages of Action Research

The advantages of conducting an educational action research are educational action research enables educators to obtain important information which allows them to understand the practice of teaching, student learning practices, the situation of students and the atmosphere in the classroom. Educators are also able to design the description of the subjects more effectively [2]. Conducting action research also provides opportunity for educators to diversify their teaching techniques in order to facilitate the achievement of their students' understanding in certain subjects.

Besides that, by conducting an action research, educators are able to improve their teaching practices theoretically and

practically. It also encourages educators to be sensitive and concerned with any issues raised in their educational institutions at any time. Lastly, conducting an action research is able to nurture educators to be researchers that can think critically, rich with new ideas, and willing to accept changes as well as having the capability to evaluate existing curriculum and co-curriculum.

3. Lecturers' Perception on Action Research

Two main necessities in the job descriptions of tertiary institution lecturers are teaching and conducting research. A university or college lecturer is normally required to write a research paper, present it at a conference or publish it in a journal. Besides, it has been included as one of the criteria to apply for promotion. For example, a Malaysian polytechnic lecturer is required to at least publish a paper and present two papers at a conference to be eligible to apply for a promotion [3].

Izah and Nor Mazlina [4] in their study of academic staff's perceptions towards research found that research is essential to lecturers' professional development such as getting a promotion and salary increment. They also shed some light on the main barrier for not doing research among university lecturers, i.e. poor statistical and econometric skills. In addition, a study by Khiat, Chia, Tan-Yeoh and Kok-Mak [5] found that the lecturers general perceive that action research is useful in teaching and learning.

Sanmugam and Rajanthran [6] examine the perceptions of lecturers in a Malaysian polytechnic towards research. The samples comprised of 82 lecturers from various departments. Self-administered questionnaires were distributed to all the participants, however; only 68 lecturers responded to the questionnaire and returned it. The findings reported that the main motivation of these lecturers' to do research is for promotion and salary raise. Besides that, heavy teaching loads, poor writing and statistical skills are the main barriers expressed by the lecturers. The findings also suggested several implications for institutional administrators to enhance polytechnic lecturers' research abilities.

4. Lecturers' Capability to Do Action Research

Research has several features which begin with a question in the mind of a researcher. Research also needs a plan and demanded a clear statement about the problem. The investigation must be associated with the major problems found. Research is also looking for direction through hypothesis concerning the facts and the meaning of the facts. As it has been known, the main purpose of doing a research is to study things more clearly and also enable an individual to renew his or her study or research that has been done by previous researchers. Thus, each study is being up to date that allows anyone who wants to use these materials do not easily get bored with the old and backward information. Research is also a new science to be learned in order to perform a task more quickly, precisely and effectively. However, an effective research depends on the capability of an individual.

Ho, Woods, Aziz and Sin [7] found that "lecturers were knowledgeable about what doing research meant and were positive about the benefits of being a university college". Tertiary institutions, lecturers are normally required to attend some research and publication workshops. They are exposed to the techniques of writing a conference or journal paper and strategies to get it published. Besides, the experienced lecturers would guide the novice lecturers in writing a paper.

On the other hand, a study by Suwanwala as cited in Lertputtarak [8] on research productivity among academic lecturers in Chulalongkorn University found that many lecturers short of the understanding, abilities, experience and resources to do research. Thus, this leads to lack of confidence among the lecturers to conduct research. Lack of encouragement and attractive motivation methods could affect lecturers' capabilities in doing a good research. In addition, academic lecturers usually conducted research on the topics that they were personally interested in rather than attempting to conduct research that would be more beneficial to both their local community and to national development [8].

Mukrim [9] conducted a study to find out the challenges faced by English teachers when doing classroom action research and their recommendation on ways to facilitate and support them on doing classroom action research which promotes more sustainable practice. His study found that insufficient knowledge of classroom action research concepts, lack of mentoring, no assistance from collaborators and time constraints emerged as the key factors that hampered them in doing action research. It is recommended that teachers need to be given support expert mentors along with the internal support such as from school principals and colleagues. In addition, support can also be given in the form of incentives and broad access to publishing teachers' works.

Bay and Clerigo [12] found that most of the lecturers were more assured with the practical aspects of writing a research paper such as research paper format, grammar and sentence construction, research organization and communication skills, as well as with the other parts of the research process, such as writing the abstract and references as associated with developing research findings. Instead, they were least assured in writing the methodology of the paper of which the lecturers were mostly guided by the assigned reader/referee and statistician.

5. Objectives of the Study

The objectives of this study are as follows:

(1) To find out the demographic profile of the polytechnic lecturers in terms of their position, rank, educational

background and research background.

(2) To find out the level of the polytechnic lecturers' perception in conducting action research in terms of time, cost, image, technicality and effort.

(3) To find out the level of the polytechnic lecturers' capability to undertake action research in terms of knowledge, skills and reason.

6. Methodology

The participants of the study were 41 lecturers from the General Studies Department at a polytechnic in Sarawak. However, only 39 lecturers responded to the questionnaire and returned it. The instrument used in this study was a questionnaire which was adapted from Sanmugam and Rajanthran [6] and Pati [10]. The questionnaire consisted three sections; first was related to lecturers' demographic profile and the second section focused on the lecturers' perceptions towards research while the third section examined their capability to undertake action research. The questionnaire would be written in both English and Bahasa Malaysia. The data obtained from the questionnaires were analyzed using the Statistical Package of Social Science (SPSS) software. Frequency distribution was used to describe the demographic data. Meanwhile, a five-point Likert scale was used to measure the level of the polytechnic lecturers' perceptions and capability in conducting action research, based on the following criteria (Table 1).

Table 1. *Level of lecturers' perceptions and capability in conducting action research.*

Mean Range	Interpretation
3.68 – 5.00	High degree
2.34 – 3.67	Moderate degree
1.00 – 2.33	Low degree

7. Results and Discussion

This section is divided into four parts: (1) demographic profile of the respondents, (2) respondents' research background, (3) lecturers' perception in doing action research and (4) lecturer's capability to undertake action research.

7.1. Demographic Profile and Research Background of the Respondents

Table 2 shows the information regarding to lecturers' demographic profiles. In terms of rank, the data show that 51.3% of the lecturers were in grade DH44. The majority of the lecturers possessed a Bachelor degree (79.5%) and about 20.5% of them owned Masters degree.

Table 2. *Demographic profile of the Respondents.*

Categories	Items	Frequency	Percentage
Position	Lecturer	39	100
	Senior Lecturer	0	0
	Head of Unit	0	0
	Head of Department	0	0
Rank	DH 48	1	2.6
	DH 44	20	51.3
	DH 41	18	46.2
Highest academic qualification	Bachelor	31	79.5
	Master	8	20.5
	PhD	0	0

In terms of the lecturers' research background as shown in Table 3, it was found that the majority of them had attended research methodologies courses (87.2%). As for presentations, at least 23.1% of the lecturers had presented at international conferences and 12.8% at national conferences. Many polytechnics have started to organize internally and zone level seminars or colloquiums to provide the platform for the lecturers to present their research since paper presentations and publications have been set as one of the criteria for promotions. With further effort to inculcate the interest in conducting research among lecturers, the papers which were presented in these seminars or colloquiums are published in their respective polytechnic digest. Although the polytechnic management has taken the steps to provide a platform for lecturers to present and publish their papers, it was found that the lecturers' participation was moderate. In terms of presentations, 20.5% and 33.3% had presented their papers in the zone and internal level seminars or colloquiums respectively, whereas 23.1% of them have published their papers in polytechnic digests. In terms of journal publications, 12.8% have published their papers in journals while 30.8% in the conference proceedings.

Table 3. *Research Background.*

Categories	Items	Yes (%)	No (%)
Have you attended any research methodologies courses?		87.2	12.8
Have you presented your research in	International conferences	23.1	76.9
	National conferences	12.8	87.2
	Zone level seminars or colloquiums	20.5	79.5
	Internal seminars or colloquiums at polytechnic	33.3	66.7
Have you published your research in	Journals	12.8	87.2
	Conference proceedings	30.8	69.2
	Polytechnic Digest	23.1	76.9
Have you attended	International conferences	38.5	61.5
	National conferences	43.6	56.4
	Zone level seminars or colloquiums	33.3	66.7
	Internal seminars or colloquiums at polytechnic	64.1	35.9

In terms of attending conferences, 61.5% and 56.4% had never attended international and national conferences respectively. This is probably due to the fees which have to be paid on their own. However, it was found that 64.1% have attended internal seminars or colloquiums at their polytechnic as participants. This is perhaps because participation in internal seminars or colloquiums is either cheaper or free of charge.

7.2. Lecturers' Perception in Doing Action Research

Table 4 shows the level of lecturers' perception in conducting action research in terms of time. The overall mean of lecturers' perception in conducting action research in terms of time is 2.68 or moderate, indicating that the item is fairly evident in some occasions, which mean that doing action research indeed needs time. The item *Conducting action research while teaching means wasting time* has an average mean of 2.31, which indicates that most of the respondents disagree that doing action research is a waste of time and thus they can undertake it while teaching. On the other hand, the item *Doing action research requires a lot of time* got an average mean of 3.82 or high, which signified that most of the respondents agreed that doing action research thus requires a lot of time. This result moderately confirms the findings of Mukrim [9] who found that time constraint are one of the challenges faced when conducting action research. Heavy workloads such as abundance of teaching activity and engaging with other administrative tasks may hinder lecturers to carry out an action research. Although the lecturers can collaborate with fellow colleagues to do an action research, this can be hampered when each of them had their own teaching tasks to do which took over the action research project. Thus, it takes commitment from the lecturers to spare some of their time for research.

Table 4. *Level of Lecturers' Perception in Conducting Action Research in terms of Time.*

No	Statement	Average Mean	Descriptive Interpretation
1	Doing action research requires a lot of time	3.82	High
2	Action research is not affected by workload	2.41	Moderate
3	Action research requires less time	2.47	Moderate
4	Conducting action research while teaching means waste time	2.31	Low
5	Time is not an important element in doing action research	2.41	Moderate
	Total Mean	2.68	Moderate

Table 5 shows the level of lecturers' perception in conducting action research in terms of cost. The information exhibits that the overall mean of lecturers' perception in conducting action research in terms of cost is 3.43 or moderate which indicates that conducting action research thus require a certain amount of money; lecturers have to use their own money for purposes such as printing questionnaires when conducting action research. In particular, *action research is* inexpensive obtained an average mean of 3.31 or moderate, indicating that doing action research can be done at minimum expense. Expenses can be shared when the lecturers are willing to break the isolation and start to collaborate with other lecturers [11].

Table 5. *Level of Lecturers' Perception in Conducting Action Research in terms of Cost.*

No	Statement	Average Mean	Descriptive Interpretation
1	Action research can be done at minimum expense	3.51	Moderate
2	Action research is inexpensive	3.31	Moderate
3	Money is not an issue in conducting action research	3.53	Moderate
4	Action research involves fewer budgets	3.38	Moderate
	Total Mean	3.43	Moderate

Table 6 revealed the level of lecturers' perception in conducting action research in terms of image. The data revealed that the overall mean of lecturers' perception in conducting action research in terms of image is 3.61 or moderate which indicates most of the lecturers have a good image in doing action research. Particularly, action research builds trustworthiness or reliability obtained an average mean of 3.90 or high. Action research enables lecturers to gain a greater insight into what is happening in the minds of their students and hence, it fosters clearer communication between lecturer and student. Besides, doing action research also creates opportunities for networking with other vibrant and diligent educators [11]. Whilst, action research can give much money gained an average mean of 2.90 or moderate, indicates that the lecturers did not agree that doing action research can give much money but they still agreed that doing action research would still give them money.

Table 6. *Level of Lecturers' Perception in Conducting Action Research in terms of Image.*

No	Statement	Average Mean	Descriptive Interpretation
1	Action research boasts credibility	3.85	High
2	Action research builds trustworthiness or reliability	3.90	High
3	Action research increases professional rank	3.74	High
4	Action research can give much money	2.90	Moderate
5	Action research improves image	3.66	Moderate
	Total Mean	3.61	Moderate

Shown in Table 7 is the level of lecturers' perception in conducting action research in terms of technicality. It is revealed that the overall mean of lecturers' perception in conducting action research in terms of technicality is 3.21 or moderate, indicating that they do have high technicality in doing action research therefore they still need to be guided in some parts of the research technicality. The highest level of average mean is guide is still needed in doing action research obtained an average mean of 4.15 or high. Previous research

suggested that novice lecturer-researchers should be guided by the experienced lecturer-researchers in writing papers through a mentoring system [7, 9]. The item *action research is* difficult to do obtained an average mean of 2.77 or moderate. This is probably because the lecturers may encounter difficulty in some technical parts of action research such as writing the methodology of the paper [6].

Table 7. *Level of Lecturers' Perception in Conducting Action Research in terms of Technicality.*

No	Statement	Average Mean	Descriptive Interpretation
1	Action research is easy to do	2.89	Moderate
2	Action research is complex to do	3.00	Moderate
3	Action research is difficult to do	2.77	Moderate
4	Finding a problem is easy in doing action research	3.23	Moderate
5	Guide is needed in doing action research	4.15	High
	Total Mean	3.21	Moderate

Presented in Table 8 is the overall level of lecturers' perception in conducting action research in terms of effort. The overall average mean is 2.90 or moderate, indicates that most of the lecturers fairly agree that conducting action research needs some effort. The lowest level of average mean of doing action research in terms of effort is 2.82 or moderate levels. This indicates that most of the lecturers disagree that action research can be done without much effort. Nunan, as cited in [11] highlighted seven steps in doing action research which requires an effort such as initiation, preliminary investigation, formulation of hypothesis, intervention, evaluation, dissemination and follow-up.

Table 8. *Level of Lecturers' Perception in Conducting Action Research in terms of Effort.*

No	Statement	Average Mean	Descriptive Interpretation
1	Action research is stressful	3.00	Moderate
2	Action research does not drain physical and mental energy	2.85	Moderate
3	Action research is easy to conduct	2.92	Moderate
4	Action research is simple and undemanding	2.92	Moderate
5	Action research is effortless	2.82	Moderate
	Total Mean	2.90	Moderate

7.3. Lecturers' Capability to Undertake Action Research

Table 9 revealed the level of lecturers' capability to undertake action research in terms of knowledge. It is shown in the data that the overall mean of lecturers' capability in conducting action research in terms of knowledge is 3.38 or moderate which indicates that some of them are capable to conduct action research. The highest level is *I can distinguish the different parts of research* gained an average mean of 3.64 or moderate. This supports the finding by Bay and Clerigo [12] that most of the lecturers were very assured with the practical aspects of writing a research paper such as research paper format, grammar and sentence construction, research organization and communication skills as well as other parts of the research process including writing the abstract and references as associated with developing research findings. The lowest level of lecturers' capability is by differentiating between MLS and APA formats which obtained an average mean of 3.21 or moderate. Hence, this indicates that the lecturers are not familiar with the formats.

Table 9. *Level of Lecturers' Capability to Undertake Action Research in terms of Knowledge.*

No	Statement	Average Mean	Descriptive Interpretation
1	I can distinguish the different parts of research.	3.64	Moderate
2	I can understand the different types of research.	3.49	Moderate
3	I have ideas on how to start action research.	3.38	Moderate
4	I can identify whether the research is descriptive, experimental, correlation or evaluative.	3.18	Moderate
5	I understand what are MLS and APA formats.	3.21	Moderate
	Total Mean	3.38	Moderate

Presented in Table 10 is the level of lecturers' capability to undertake action research in terms of skills. The data reveal that the overall average mean of lecturers' capability to conduct action research in terms of skills is 3.46 or moderate, indicating that the lecturers have skills in doing action research, if relevant guidance is provided. The item *I know how to take* down notes and cite authors have the highest average mean of 3.90 or high, indicates that most of the lecturers are able to cite authors appropriately in their papers. *I can do simple descriptive and inferential statistics* obtained an average mean of 3.23 or moderate. This is probably because some lecturers are still not able to differentiate the differences between descriptive and inferential statistics or have no much exposure to the use of inferential statistics as most of them will be using descriptive in their research since it is simpler and more convenient.

Table 10. *Level of Lecturers' Capability to Undertake Action Research in terms of Skills.*

No	Statement	Average Mean	Descriptive Interpretation
1	I can formulate a research problem.	3.23	Moderate
2	I can do simple descriptive and inferential statistics.	3.23	Moderate
3	I can define words operationally.	3.33	Moderate
4	I can write unified, coherent and emphatic sentences.	3.59	Moderate
5	I know how to take down notes and cite authors.	3.90	High
	Total Mean	3.46	Moderate

Table 11 shows the level of lecturers' capability to undertake action research in terms of reason. The overall

average mean of lecturers' capability to conduct action research in terms of reason is 3.21 or moderate, indicating that the lecturers have reasons to do action research. In particular, *I am challenged to do action research for my professional growth* has an average mean of 3.77 or high. Wachholz and Christensen [13] stated that action research enables lecturers to consider their work systematically, and they are richly rewarded for their efforts. In addition, thoughtful reflection translates into enhanced teachers efficacy. And, when teachers are confident, they communicate beliefs of their own efficacy to their students. Lecturer research has tremendous potential to influence what lecturers know about teaching and learning, and what lecturers are learning will greatly impact the future of their institutions. Finally, *action research is useless and has no impact* has an average mean of 2.08 or low, means that the lecturers disagree that doing action research is useless and giving no impact on them.

Table 11. *Level of Lecturers' Capability to Undertake Action Research in terms of Reason.*

No	Statement	Average Mean	Descriptive Interpretation
1	I am motivated to do action research because I am a lecturer.	3.44	Moderate
2	I am inspired to do action research because of the incentives.	3.18	Moderate
3	I am encouraged to carry out action research because of the promotion.	3.56	Moderate
4	I am challenged to do action research for my professional growth.	3.77	High
5	Action research is useless and has no impact.	2.08	Low
	Total Mean	3.21	Moderate

8. Conclusion

From the findings, it can be concluded that most of the lecturers have a positive perspective towards conducting action research. In order to motivate lecturers to be actively involved in conducting action research, the institution could provide support such as incentives and broad access to publishing lecturers' works. Besides, mentoring system between experienced lecturer-researchers and novice lecturer-researchers can be carried out to increase the research productivity. Funding to present papers at conferences should be provided in order to motivate the lecturers. Although the study was limited to lecturers from a polytechnic in Sarawak, further studies can be undertaken using lecturers from other polytechnics or community colleges across the country for more conclusive findings.

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