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Role of In-service Training to Professional Competencies of Sports Science Lecturers in the Malaysian universities

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Abstract:

Competencies acquired through in-service training professional skills of academic staff and enhances various teaching competencies, experiences, and professional qualification. Competencies of Malaysian lectures in sports science were evaluated based on their participation in planning instruction, conducting, instructing, and evaluating instruction to facilitate students' growth using exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). Results show that the convergent validity for all the loadings was statistically significant. The critical ratios (t-values) were significant at 0.05 level. Research findings showed that in-service training program among sports science lecturers in Malaysian universities improves lectures' professional competencies and enhances teaching skills and experiences that facilitate students' growth. Findings showed that all constructs that were measured were significant and supported that in-service training services provided a promotional opportunity to advance university lecturers' professional competencies and experiences required for effective teaching services. Therefore, recommended that appropriate measures should be taken to integrate in-service training programs in Malaysian universities.

Keywords: In-service, Sports science, Teaching competencies, Malaysian universities.

المخلص

الكفاءات المكتسبة من خلال المهارات المهنية للتدريب أثناء الخدمة لأعضاء هيئة التدريس وتعزز الكفاءات التعليمية المختلفة والخبرات والمؤهلات المهنية. تم تقييم كفاءات محاضري العلوم الرياضية في جامعات ماليزيا بناءً على مشاركتهم في تعليم التخطيط، وإجراء التعليمات وإرشادها وتقييمها لتسهيل نمو الطلاب باستخدام تحليل العوامل الاستكشافية (EFA) وتحليل العوامل المؤكدة (CFA). أظهرت النتائج أن صلاحية التقارب لجميع عمليات التحميل كانت ذات دلالة إحصائية، كانت النسب الحرجة (قيم t) عند مستوى 0.05. كما أظهرت نتائج البحث أن برنامج التدريب أثناء الخدمة بين محاضري العلوم الرياضية في جامعات ماليزيا يحسن الكفاءات المهنية ويعزز مهارات التدريس والخبرات التي تسهل نمو الطلاب. كما أثبتت النتائج أن جميع التركيبات التي تم قياسها كانت مهمة ودعمت أن خدمات التدريب أثناء الخدمة قدمت فرصة لتعزيز الكفاءات والخبرات المهنية للمحاضر الجامعي المطلوبة لخدمات التدريس الفعالة. ولذلك أوصت بضرورة اتخاذ التدابير المناسبة لإدماج برامج التدريب أثناء الخدمة في الجامعات الماليزية.

الكلمات المفتاحية: التدريب أثناء الخدمة، العلوم الرياضية، الكفاءات التعليمية، جامعات ماليزيا.

1. Introduction

In-service training is central to the acquisition of professional competencies in view of the transitional changes in Malaysia university education based on its essential role in meeting the development changes. The changes in education sector necessitate for efficient management of the fast growing innovations especially in sport science which has developed into a very successful profession that generate large revenues across countries.[1] The changes in educational sectors are pioneered by the advances in the use of sophisticated information technology infrastructure in in-service training program and posed great challenges as a result of rapidly changing social and technological developments [2], and have revolutionized the way academic programs were handled and the

quality of services in educational sectors.[3] In Malaysia, in-service training and teachers' developmental activities for academic staff are expensive.[4,5] However, there is a need for lecturers in Malaysia universities to participate in professional development oriented in-service training programs so as to match with the adoption of technological infrastructures in teaching practices. The integration of IT infrastructure in in-services programs make its implementation very demanding since teaching requires that lecturers acquire specific field competencies to facilitate academic learning through learning experiences, stimulates content, and implements flexible teaching strategies to prepare the student for future changes and challenges.

1.1. In-service Training in Teaching

In-service training programs in teaching equips sports science lecturers with skills that enables them to develop their professional skills that strengthens innovation initiatives. [6] A basic sports science skill acquired through in-service training programs perfectly guide the teaching of sports science in schools. However, in-service training in teaching is constrained by the changing nature of teaching activities which requires professionally qualified and proactive skills to enable them to respond adequately to the uncertainties and increasing complexities that characterizes sports science educational settings. The professional skills can be acquired through in-service experiences that facilitate student growth and general view of education. [7] However, these innovative changes necessitate competencies in teaching skills to deliver quality education [4], and to foster willingness to participate in professional developmental through in-service training programs as a way to promote effective and efficient teaching practices. However, the conceptualization of teacher's in-service training has been referred to as a professional development process that starts from an institutional level.[8] The developmental processes in teaching competencies are positive steps in educational training with a focus on transforming students into competent learners. [9] The demystification of teacher's educational in-service training process leads to greater confidence that improves students learning outcome.

1.2. Competencies in In-service Training Program

Technological innovation in teaching practices has been characterized by developmental training progresses in in-service programs of teachers.[10] Teacher education in partnership with in-service programs indicated that school-based teachers enhance education qualification of teachers through the learning process while at school services.[10] Educational in-service training programs aim at meeting student academic need in the workplace together with formal educational activities and competence.[11] Establishment of the contribution and effectiveness of in-service training program competencies through work-based learning in educational sectors in Malaysia could positively foster improved teaching competencies in various fields of learning among Malaysia universities.

1.3. Teaching Competencies

Specific knowledge and ability required in different academic fields to deliver lectures in various levels of teaching is referred to as teaching competency. It encompasses compliance with a specific acceptable standard required for a particular duty or an occupation that addresses teaching ability and efficiency and extends to setting of social behaviours that allows for proper delivering of the role or function or activity in a specific community or the environment.[12] Teachers are often responsible for planning and implementation of sport science programs covering all aspects of activity that are taught in-service training. In situations where certification is provided, lecturers plan the activities that should appropriately certify the program. The purpose of in-service training is to improve teacher's competence skills in providing, conducting and facilitating learning experiences. Therefore, teaching competence extends to adequacy for a task requiring knowledge, skill, and abilities. [13]

In view of Malaysian universities, it has been reported that lecturers should possess a good command of English to enable them interact with foreign students [14], as more than 50% of the lecturers in Malaysia that sat for the English examination were found to be incompetent in using English as a mode of instruction in 2006.[15] Considering the necessity to identify knowledge and performance discrepancies base on lecturer's incompetence in conduction instruction, study added[16] that attention should be focused on in-service training program as capable of enhancing the competencies of teaching instructors. Previous studies found that lecturer's competency level determines their professional development in conducting instruction.[16,17] Effective professional development training programs are needed to facilitate learning.[18,19] However, it has been found that teachers perceived that their professionalism in the respective fields of teaching can be enhanced through a planned in-service training program that focuses on academic needs which are essential in improving their instructional competencies[20,9] , and has been considered as a more structured learning approach. Consequently, there is limited research on teaching competencies in Malaysia universities. However,

competencies associated with participation, implementation and evaluation of teaching professional skills with the aim to enhance student's academic performance are discussed in this study.

Teachers' participation in in-service training programs provides them with the opportunities to learn while still undertaking their normal teaching job. Participation as refers to teaching competencies entails taking part in different spheres of in-service training in an attempt to acquire knowledge on the effectiveness of the teaching role in educational training program. This term is used to explain the teacher's involvement in in-service training leading to the effective and efficient enhancement of academic practices in sports science.[21] In-service training have been referred to as the best catalyst for professional development based on needs-oriented, well-conceived, and organized instructional improvement program[22] , that needs personal involvement, consensus, and commitment for effective implementation of teaching practices (p.2), teachers' participation in in-service training program and have been considered to be:

- Interactional, structured and should be guided by competent and experienced colleagues.
- Teachers should be exposed to learning opportunities that determines their competence level.
- Learning opportunities should be based teachers' developmental needs.
- There is a need for close collaboration to facilitate knowledge transfer and cooperation among teachers in various universities in Malaysia.

Implementation of in-service training refers to the process of organizing teaching practice, program, or set of activities.[23] It extends to initiation of sports science programs that facilitate learning of skills to improve competence and academic qualification, which are often evaluated based on its outcome. Implementation of skills include presenting facts, concepts, principles, problem solving strategies and are considered to be part of a classroom recitation process such as listening, explaining, questioning, giving examples and introducing new sports skills.

Evaluation as used in sports science entails the ability of teachers to assess the value of materials and methods in in-services training to appraise critique or interpret meanings [24], and is also useful in assessing student performance in rating their general learning outcome.

1.4. Professional Competencies

However, professional competences in the developmental process of the decisive issues arising from technological challenges and important shifts to upgrading teaching professional competencies platform and the quality of teachers to meet specific field requirement that necessitates improved competencies in the respective academic discipline.[25] Prevailing problems encountered by university teachers in the Arab countries has been attributed to lack appropriate in-service program to enhance teaching skills so as to keep with the changes in the curriculum contents resulting from scientific and technological progress in modern time[26] , and has been found to be prevailing in Malaysia universities.

To keep with the growing trend in education, it is deemed important for lecturing competencies to be improved via an in-service training program. In-service training has been recognized as a potential improvement among sports scientist in education having long suffered in its developmental processes in coping with technological changes in educational requirement across different academic setting.[25] In-service training serves as a tool in continuing academic program quality to meet educational needs of students by providing opportunities for lecturers to engage in self-examination and renewal as well as to provide a starting point for the

2. Method

Samples used in the present study comprise of lecturers of different ages from the Faculty of Sport Science and Management in Malaysia universities. SEM was used to statistically analyze dataset and to test the hypotheses. [24] Data was collected using a survey questionnaire. This type of data collection method provided opportunities for interaction between the researcher and the respondents and enables the researcher to clarify respondents on the need for the research and the importance of completing the survey instrument base on their knowledge about the research instrument. [27]

3. Result and discussion

The demographic profile of the respondents is as shown in Table 1. The demographic profile of the respondents showed the age range, gender, academic qualification and working experience of the respondents. The respondents age ranges from 30 years and above 50 years and comprised male and female with different academic qualification and working experiences. Detailed description of the study demographic is as shown in Table 1.

Table 1 Demographic Profile of the Respondents

No.	Particulars	No.	%
1	Age		
	1) Below 30 years	31	19.4
	2) 30 Less than 40	57	35.6
	3) 40 Less than 50	42	26.3
	4) 50 Years and above	30	18.7
2	Gender		
	1) Male	94	58.7
	2) Female	66	41.3
3	Academic Qualification		
	1) PhD	40	25.0
	2) Master	102	63.7
	3) Degree	16	10.0
	4) Others (please state)	2	1.3
4	Working experience		
	1) Less than 5 years	39	24.4
	2) 5 Less than 10 years	34	21.2
	3) 10 Less than 15 years	53	33.1
	4) 15 Less than 20 years	19	11.9
	5) 20 and above	15	9.4

Summary of the descriptive and inferential statistics of all construct are shown in Table 2. The statistical description was explained using mean, standard deviation, number of items used, reliability statistics, skewness and kurtosis.

Table 2 Summary of Statistics for All Constructs

No.	Competencies	Mean	SD	Item	α	Skewne-ss	Kurto-sis
1	Planning instruction	5.580	1.007	7	0.918	-.489	.106
2	Evaluating instruction	5.616	.988	6	0.877	-.791	1.123
3	Facilitating student growth	5.181	.917	5	0.840	-.111	-.253

The composite reliability measurement of the Congeneric measures was reported in Table 3. and comprises competencies in planning instruction, competencies in evaluating instruction and competencies in evaluating student growth among Malaysia universities.

Table 3 Summary of Results obtained from the Measurement Model

No.	Congeneric Measures	Composite Reliability
1	Competency in Planning Instruction	0.927
2	Competency in Evaluating Instruction	0.866
3	Competency in Facilitating Student Growth	0.852

4. Conclusion

In-services practices among Malaysia university has been investigated. Finding showed that in-service training is central to the acquisition of professional competencies among sports science lecturers in Malaysia university and its essential role in meeting the developmental changes necessitated its adoption in in the present study. The changes in educational sectors are pioneered by the advances in the use of sophisticated information technology infrastructure which posed great challenges as a result of rapidly changing social and technological developments and have revolutionized the way academic programs were handled and the quality of services in educational sectors. The integration of IT infrastructure in in-services programs make its implementation very demanding. The developmental processes in teaching competencies are positive steps in educational training with a focus on transforming students into competent learners. Findings showed that In-service training is a tool for continuing academic program quality to meet educational needs of students by providing opportunities for lecturers to engage in self-examination. Data used in the present study were collected from respondents between age range 30 years and above 50 years and comprised male and female with different academic qualification and working experiences. Descriptive statistics used to mean, standard deviation, number of items were used while inferential statistics such as reliability statistics, skewness and kurtosis were used to validate the reliability of the construct. The composite reliability measurement of the Congeneric measures showed that the valued measured were reliable. The variables used comprises competencies in planning instruction, competencies in evaluating instruction and competencies in evaluating student growth among Malaysia universities. Although the study focuses on Malaysia university, the result obtained can be replicated among other Asian countries.

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