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Pedagogical Knowledge of Faculty Members in the College of Education at Imam Abdulrahman Bin Faisal University in the Kingdom of Saudi Arabia from the Students' Perspectives

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Abstract

This study aimed to uncover the pedagogical knowledge of faculty members in the Faculty of Education at Imam Abdulrahman Bin Faisal University according to the students' perspectives. The researcher used a questionnaire that consisted of 31 items covering three dimensions: content knowledge; students' characteristics knowledge; and pedagogical knowledge, and applied it to a random sample of 405 students who were enrolled in the second semester of the academic year 2016/2017 from the College of Education at Imam Abdulrahman Bin Faisal University. The obtained results showed that the students believed that faculty members had a low level of pedagogical knowledge in all aspects. In light of the study's results, the researcher recommended conducting a meditative training workshop in order to develop the college members' pedagogical knowledge as well as conducting related comparative studies.

Keywords: pedagogical knowledge, college members, College of Education, KSA.

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Volume 19 Number 4 December 2018

المعرفة البيداغوجية لدى أعضاء هيئة التدريس في كلية التربية بجامعة الإمام عبدالرحمن بن فيصل بالمملكة العربية السعودية بحسب وجهة نظر الطلاب والطالبات

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الملخص

سعت هذه الدراسة للكشف عن المعرفة البيداغوجية لدى أعضاء هيئة التدريس في كلية التربية بجامعة الإمام عبدالرحمن بن فيصل حسب وجهة نظر الطلاب والطالبات، ولتحقيق هذا الهدف قام الباحث بإعداد أداة الدراسة، وتمثلت باستبيان شمل(٣١) فقرة موزعة على مجالات ثلاثة؛ مجال المحتوى المعرفي ، ومجال معرفة خصائص الطلاب والطالبات ، ومجال المعرفة البيداغوجية العامة ، وتم تطبيق الأداة بعد التأكد من صدقها وثباتها، وذلك في الفصل الثاني من العام الدراسي ٢٠١٦/٢٠١٧ على عينة عشوائية بلغت(٤٠٥) طالبا وطالبة من كلية التربية في جامعة الإمام عبدالرحمن بن فيصل.

وأظهرت النتائج مستوى منخفضا من المعرفة البيداغوجية لدى أعضاء هيئة التدريس في المجالات كلها، كما أشارت إلى وجود فروق ذات دلالة إحصائية لمتغير السنة؛ وذلك لصالح السنة الرابعة مقارنة بما دونها، ولصالح السنة الثالثة مقارنة بما دونها؛ ولم تظهر فروق دالة في استجابات الطلاب والطالبات للسنة الأولى مقارنة بالثانية، ولم تشر النتائج كذلك إلى فروق دالة لصالح متغير الجنس.

وفي ضوء نتائج الدراسة أوصى الباحث بضرورة عقد ورش عمل تأملية تدريبية؛ لتطوير المعرفة البيداغوجية لدى أعضاء هيئة التدريس في كلية التربية بجامعة الإمام عبدالرحمن بن فيصل، وإجراء دراسات مقارنة ذات صلة.

الكلمات المفتاحية: المعرفة البيداغوجية، أعضاء هيئة التدريس، كلية التربية، المملكة العربية السعودية.

Volume 19 Number 4 December 2018

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Introduction

The instructors and faculty members are considered an essential pillar in any educational system as they are the most influential components for achieving the system's goals. No matter how effective other elements are their scope would be limited if the educational system did not have a skilled instructor; one who is equipped with good educational preparation and specialization, in addition to having creative skills that allow him/her to adapt to changes in the educational system (Koutselini & Persianis, 2000). This is because the profession of education is no longer solely based on instinct, talent, and practice. Instead, the instructor needs to master fundamentals, rules and techniques that are based on scientific and educational theories.

Whether at school or at university, the teacher's knowledge contributes to the expertise and skills that make teaching an art, based on what the students must learn and how they learn it. This is referred to as Pedagogy or Pedagogical Knowledge, a synonym for the art of teaching (Ball, Thames & Phelps, 2008). Shulman (1986) defines pedagogy or pedagogical knowledge as the main principles upon which the teaching process relies. These include the practical methods of class management, teaching skills, time of academic learning, waiting time, the class and school social system, as well as the principles of class learning. Van Driel, Verloop and De Vos (1998) define pedagogy as a group of actions that the teacher uses as part of his/her tasks. Such actions include knowledge transfer functions, schooling an academic group, general and specific knowledge of teaching

principles, personal beliefs, and work experience, with an emphasis on the teacher's knowledge of teaching, content, methods and context. It also includes general education knowledge, teaching environment, and leaning context.

On the other hand, Gess-Newsome (1999) sees pedagogy as a special combination of the scientific and teaching content, hence giving the teacher his/her uniqueness. It is a special way of absorbing the scientific material, adjusting it to the educational situation, and adopting it according to the individual differences among learners. In the same context, Abu Latifa (2005) sees that pedagogy is the knowledge that exceeds the knowledge of the syllabus itself to knowing how to teach it. This, in turn, will make the syllabus easier and learnable through explanations, clarifications, discussions, giving examples, practical experiments, and other representations that make the syllabus understandable by different students regardless of their ways of thinking, societies and backgrounds.

Shulman is concerned with the concept of pedagogical knowledge in order to focus on what the students are supposed to learn and how they learn it. He called for the study of the relationship between the teacher's understanding of the syllabus and their way of teaching it. He further classified general pedagogical knowledge into three types: knowledge of the course material, pedagogical knowledge, and curriculum knowledge (in: Schneider & Plasman, 2011).

The literature in the educational research (e.g. Wattchow & Brown, 2011; Merdith, 1995; De Jong, 1994; Grossman, 1990; and Shulman, 1987) indicate that there are several classifications of pedagogical knowledge:

1) General Pedagogical Knowledge: This refers to the basic principles upon which the teaching processes rely, such as class management, teaching skills, learning time, waiting time, the classroom or university social system, and principles of interpersonal interaction.

2) Curriculum Knowledge: This indicates that the scientific knowledge intended to be learned is exposed to many transformations in order to become educational. The educational institutions, publishers and authors are responsible for organizing knowledge and formulating it as school or university courses that serve as a guide for the teacher or faculty members.

Therefore, curriculum knowledge refers to the instructor's knowledge of the formal curriculum, its outlines, and all programs related to the topics covered in the curriculum. The instructor should also know the general objectives of the curriculum as well as the planning, implementation, and evaluation strategies of the curriculum.

3) Pedagogical Content Knowledge (PCK): This includes the physical and structural framework of a field or a branch of knowledge. The instructor's knowledge of the physical structure refers to the facts, concepts, information, principles, rules, generalizations; such include knowledge and relationships among them. This is also called educational knowledge since it refers to what the researchers and scholars produced in different educational materials and knowledge disciplines. The structural knowledge refers to the ways and operations that generate knowledge, as well as the standards upon which knowledge and its validity are based.

4) The Pedagogical 'Inherited' Work: This is the knowledge derived from experience, or pedagogical inheritance, which stem from the teachers' public experiences that have been experimentally tested and phrased. It is also termed 'knowing the norm', which may contain errors that can be adapted and adjusted through trial as knowledge related to classroom management and learners' interaction. This opens the way for teachers to think about the problems and find alternatives. It is important to professionalize the profession.

5) Knowledge of Learners: This refers to knowing the interests of the learners, their educational needs, their individual differences, their experiences, the difficulties that hinder their prior learning or past concepts whether correct or incorrect, 'alternative concepts', and the incorrect application of their knowledge.

6) Knowledge of Educational Context (Knowledge of Education Fields): This refers to knowing the social context of the students, their weaknesses and strengths, and appreciating the cultural, social or religious diversity in the society from which the student came. It is a professional and quality knowledge that has no direct connection to pedagogy, though it is used to serve it.

7) Knowledge of Philosophies, Goals and Objectives: This refers to knowing educational philosophies, their historical roots, goals, objectives, ethical standards, social values and their impact on instruction.

Based on the literature three main areas in relation to pedagogy need to be considered.

The General pedagogical knowledge including the origins of teaching, learning environment, classroom management, learning management, methods of dealing with students, teaching strategies , the roles of teachers and learners in the learning process. Also the content knowledge with its two types is important, the physical knowledge represented by terminology, principles, theories of specialization, and the compound knowledge; how it is generated, and the standards of determining its accuracy and validity.

Finally, learners' characteristics are essential to understand the learners' characteristics such as their individual differences, abilities, willingness and motivation to learn, their mental state, the difficulties they face while learning the course content, accepting their opinions, and motivating them to conduct cognitive interaction and to express their own experiences.

Based on this brief review of the literature, pedagogy or pedagogical knowledge is the basic principles on which instruction relies such as the practical aspects of classroom management, teaching skills, time of academic teaching, waiting time, class and school social system and the principles of learning in the classroom (Shulman, 1986). The study consists of three subjects: General pedagogical knowledge, knowledge of the students' characteristics and knowledge of pedagogical content.

The Problem of the Study

With societies entering the age of globalization, driven in part by technical scientific advances, the need for faculty members to interact with change positively has increased in a way that merges knowledge, experience, and skill within the context of the knowledge economy, especially in the College of Education.

According to (Zimmermann & Morgan, 2016) and (Fulford, 2016), modern educational studies focus on knowing the teacher's beliefs, teaching and thinking methods, and the perspective on the meaning

of learning. The current study reveals the pedagogical knowledge of the Faculty of Education students' at Imam Abdulrahman Bin Faisal University.

In response to the modernization in the educational system in general, and in the educational in particular, this study comes to uncover the Pedagogical Knowledge of Faculty Members in the Faculty of Education at Imam Abdulrahman Bin Faisal University according to the students' perspectives, as an input to achieve the desired change, and to improve this educational reality.

In order to ascertain this objective three questions were raised to be answered.

Question One: What is the level of the pedagogical knowledge of the Faculty of Education members at Imam Abdulrahman Bin Faisal University according to the students' perceptions?

Question Two: What is the perceived level of the pedagogical knowledge of the Faculty of Education members at Imam Abdulrahman Bin Faisal University according to the academic year of the students?

Question Three: To what extent does the perceived level pedagogical knowledge differ among the Faculty of Education members at Imam Abdulrahman Bin Faisal University according to the gender of the students?

Significance of the Study

The importance of this study lies in the fact that—to the best knowledge of the researcher—it is the first study in Saudi Arabia which looks into the pedagogical knowledge of the members of the Faculty of Education. This, in turn, helps draw the outlines of the actual practices of teaching at university level in Saudi Arabia. The study also results in several recommendations that serve the educational process by building structural models that aim to form and develop knowledge, as well as developing the learner's thinking while considering their needs. Importantly, the study sheds light on pedagogical knowledge as teaching practice in the university classrooms, which, in turn, improves the process of education provided that theory is linked to practice.

Methodology

Study Population

The study population consisted of 5, 032 students of the Faculty of Education at Imam Abdulrahman Bin Faisal University in the Kingdom of Saudi Arabia in the academic year 2016/2017.

The Study Sample

The study sample consisted of 405 students who were chosen randomly in the second semester of the academic year 2016/2017 from the College of Education at Imam Abdulrahman Bin Faisal University. See Table 1 for the distribution.

Table (1)
Distribution of the Study Sample by the Study Variables:

Academic Year	Number of Students		Total
	Female	Male	
First year	43	37	80
Second year	61	47	108
Third year	48	30	78
Fourth year	86	53	139
Total	238	167	405

Study Instrument

After reviewing related educational literature (e.g. Al Olaymat & Al Khawlda, 2009; Hawamda, 2008; Abu Latifa, 2005; Ball, Thames & Phelps, 2008), the researcher designed a measure to test the students' knowledge of the pedagogical knowledge of the faculty members in the Faculty of Education at Imam Abdulrahman Bin Faisal University. The measure took the form of a questionnaire that consisted initially of has 37 questions distributed across four topics: knowledge of academic content, knowledge of students' characteristics, general pedagogical knowledge, and knowledge of the educational environment. Opposite to each field was a set of educational practices and experiences which indicate the relevant acknowledge or the actual experience.

A Likert scale was used to calculate the responses: (highly agree, agree, neutral, relatively degree and disagree), and those levels were defined numerically as 5, 4, 3, 2 and 1, respectively. To judge the knowledge level, the mean was classified into three levels (low, moderate, high). The following criterion was adopted: a mean of (1-2.33) indicates a low level, a mean of (2.34-3.67) indicates a moderate level, and a mean of (3.68-5) indicates a high level.

Validity of the Instrument

The instrument was given initially to 11 jurors who have experience and expertise in the field. Questions which obtained 80% or above approval were considered reliable/credible. According to the comments of the jurors, some structural and linguistics adjustments were made. Therefore, the final form of the questionnaire consists of 31 questions distributed across three dimensions in line with the characterizes of pedagogical knowledge highlighted earlier in the paper: content knowledge field, students' characteristics knowledge field, and pedagogical knowledge field.

To check for the reliability of the measure, the researcher measured the internal consistency between the total measure and each of the three dimensions. They were found significant at (œ <= 0.01) in all fields (see Table 2).

Table (2)
Internal Consistency between the total measure and the three dimensions

No.	Dimension	Correlation Co-efficient	Significance
1.	Knowledge of General Pedagogy	0.574	0.01
2.	Knowledge of Students' Characteristics	0.662	0.01
3.	Knowledge of the Academic Content	0.731	0.01

Instrument Reliability

The reliability of the questionnaire was confirmed by its application and re-application on a pilot sample of 45 students in the Faculty of Education. The reliability coefficients were derived using the Cronbach

Alpha coefficient. The initial reliability co-efficient was 0.81. On the re-applied, (Vehkalahti, 2000) and (Ott, Lyman; Longnecker, Micheal 2008) mentioned that the reliability coefficient of the measure of the total score was 0.83, which is suitable for study purposes as it is above 0.60.

Table (3)
Shows the reliability coefficient for each of the study Dimensions.
Table 3: Cronbach Alpha Coefficient of the Study Dimensions.

No.	Dimension	No. of paragraphs	Cronbach α (alpha)
1.	Knowledge of General Pedagogy	11	0.81
2.	Knowledge of Students' Characteristics	9	0.83
3.	Knowledge of The Academic Content	11	0.85
Total Measure		31	0.83

Results

The researcher used the analytical descriptive approach because of its suitability for the present study purposes.

Statistical Analysis

To answer the questions of the study, different statistical analyses were used as follows:

1. Obtaining the arithmetic means and standard deviations for the responses of the target group for each question which represents the pedagogical knowledge level of the Education Faculty members from the students' perspective.
2. A One Way ANOVA Analysis was used to test the statistical significance of the differences between the means of the study sample responses for the questions according to the "year" variable.
3. The two independent samples t-test was used to test the statistical significance of the differences between the means of the study sample responses for the questions according to the student's "gender" variable (male, female).

Study Results and Discussion

Results related to the first question: What is the level of the pedagogical knowledge of the Faculty of Education members at Imam Abdulrahman Bin Faisal University according to the students' perceptions?

To answer this question, the means and standard deviations of the study sample responses related to the three fields of the study instrument and the instrument as a whole were calculated (see Table 4).

Table (4)
Mean, Standard Deviation, and the Level of Response of the Study Samples

No.	Dimension	Mean	Standard Deviation	Level
1	General Pedagogical Knowledge	1.060	0.121	Low
2	Knowledge of Academic Content	1.305	0.335	Low
3	Knowledge of Students' Characteristics	1.332	0.366	Low
All Questions		1.227	0.226	Low

Table 4 shows that the mean of the responses of the study sample was 1.227 which indicates that the pedagogical knowledge of the Education faculty members at Imam Abdulrahman Bin Faisal University was low according to the students' perceptions. Furthermore, the knowledge of the students' characteristics had the highest mean (1.332), while academic (cognitive) content was in the second place with a mean of 1.305, and general pedagogical knowledge scored only 1.060.

These results differ from other related studies (e.g. Gholami, 2011; Abu Mousa, 2004). The differences could be accounted for by the dissimilarity of specialty, qualifications, faculty members' beliefs, and their perspectives towards the profession of education in addition to the study instrument and its human, objective, temporal and spatial limitations which differ from the previous studies. However, the results are congruent with the content of other studies, such as Kapyla, Heikkinen and Asunta (2009), Parker and Heywood (2000, 2005), Abu Hola and AlDawlat (2007), Shantawi (2008) and Hawamdeh (2008).

The researcher believes that the reason behind the results is the negative atmosphere found in the classrooms where the faculty member controls the flow of the class. This, in turn, marginalizes the student's role, keeps him/her away from all positive interactions, the results may be attributed to the classrooms atmosphere characterized by depriving students of positive interaction. The researcher noticed that students' roles are confined to listening, memorizing and preparing for the exams. Divergence between theory and practice is the key affecting the results, needless to say there is weakness in preparing the faculty member at the Faculty of Education at the knowledge level or the skill expertise level or both.

This result points to the importance of adapting evaluation theory in the educational situation through what Shulman (1987) termed the intuitive behaviour inside the classroom situation. This is because he argues that the pedagogical knowledge grows through experience, practice of teaching and positivity. Moreover, the methods of interaction between the teacher and the students play an effective role in developing specific aspects of the student's knowledge, especially those that relate to knowing his/her needs and the difficulties he/she faces.

To measure the student's perception of the pedagogical knowledge of the Education Faculty members, the researcher measured the mean; standard deviation and level for the responses of the study sample on each indicator of the questionnaire (see Tables 5, 6 and 7).

Table (5)
Mean, Standard Deviation and Level of the Responses in the General Pedagogical Knowledge Dimension

No.	Indicator	Mean	Standard Deviation	Level
1	The instructor has an active knowledge of managing and controlling lectures	1.123	0.629	Low
2	The instructor uses different methods of evaluation and instruments	1.003	0.000	Low
3	The instructor asks students to do assignments and do group work	1.044	0.294	Low
4	The instructor uses different modern technical media in teaching	1.022	0.147	Low

Table (5)

No.	Indicator	Mean	Standard Deviation	Level
5	The instructor uses different teaching strategies taking into consideration the privacy of knowledge content	1.110	0.313	Low
6	The instructor performs classes in the available time	1.044	0.294	Low
7	The instructor relates scientific knowledge to real life situations	1.066	0.493	Low
8	The instructor presents the course topics in a way that triggers thinking	1.034	0.182	Low
9	The instructor attracts the attention of the students	1.044	0.294	Low
10	The instructor enhances correct student performances	1.012	0.110	Low
11	The instructor provides students with feedback in the appropriate time	1.144	0.583	Low

Table 5 shows that the means of the students' perceptions of the faulty members' general pedagogical knowledge range between 1.003 and 1.114. Indicator 11, which states "The instructor provides students with feedback in the appropriate time" topped the list with a mean of 1.144, followed by Indicator 1 with a mean of 1.123 and then Indicator 5 with a mean of 1.110. The lowest mean (1.003) was for Indicator 2, "The instructor uses different methods of evaluation and instruments".

Table (6)
Mean, Standard Deviation and Level of the Responses in the Academic Content Dimension

No.	Indicator	Mean	Standard Deviation	Level
1	The instructor knows specialized cognitive content	1.181	0.669	Low
2	The instructor chooses educational activities related to educational outputs and goals	1.477	0.908	Low
3	The instructor picks the educational resources at the beginning of each study unit	1.460	1.043	Low

Table (6)

No.	Indicator	Mean	Standard Deviation	Level
4	The instructor presents sufficient related explanatory examples	1.340	0.849	Low
5	The instructor provides knowledge and expertise in a logical and complete form	1.381	0.771	Low
6	The instructor ensures an increase in the students' knowledge gain	1.389	0.677	Low
7	The instructor relates the previous educational expertise with the content	1.108	0.452	Low
8	The instructor keeps up with the latest information in his academic field	1.160	0.420	Low
9	The instructor directs students towards the vertical and horizontal expansion of knowledge	1.252	0.739	Low

It is evident from Table 6 that the means for the study content field ranged between 1.108 and 1.477. Indicator 2 "The instructor chooses educational activities related to educational outputs and goals" scored the highest with a mean of 1.477, followed by Indicator 3 with a mean of 1.460, while Indicator 4 came in the third place with a mean of 1.340. Indicator 7, "The instructor relates the previous educational expertise with the content past experiences", came in last place with a mean of 1.108.

Table (7)
Mean, Standard Deviation and Level of the Responses in the Students' Characteristics Knowledge Dimension

No.	Indicator	Mean	Standard Deviation	Level
1	The instructor respects students, accepts their opinions, and is considerate about their feelings	1.560	1.025	Low
2	The instructor grants students independence during education	1.553	1.011	Low
3	The instructor has positive attitudes when managing students' discussions	1.254	0.692	Low
4	The instructor takes into account individual differences	1.685	1.067	Low

Table (7)

No.	Indicator	Mean	Standard Deviation	Level
5	The instructor appreciates students' circumstances regarding their decisions	1.303	0.771	Low
6	The instructor understands the students' problems and helps them to overcome them	1.357	0.902	Low
7	The instructor has a good relationship with students	1.203	0.548	Low
8	The instructor seeks to know the students' interests and needs	1.289	0.869	Low
9	The instructor creates interactive democratic class environment	1.073	0.448	Low
10	The instructor encourages students to be creative and innovative	1.159	0.428	Low
11	The instructor considers learners' characteristics and their abilities in the activities he chooses for them	1.213	0.460	Low

As shown in Table 7, the means for the paragraphs of students' characteristics knowledge field vary between 1.073 and 1.685. Indicator 4, "The instructor takes into account individual differences" topped the list with a mean of 1.685, followed by Indicator 1 with a mean of 1.553. Indicator 2 was in the third place with a mean of 1.553, while Indicator 9, "The instructor creates interactive democratic class environment", came in last place with a mean of 1.073.

Results Related to the Second Question: "What is the level of the perceived pedagogical knowledge for the Education Faculty members at of Imam Abdulrahman Bin Faisal University according to the students' academic year?"

To answer this question, the mean, standard deviation and level of the responses of the study sample on the paragraphs of study instrument were calculated according to the 'year' variable (see Table 8).

Table (8)
Mean and Standard Deviation of the Responses by the Year Variable

Year	Number	Mean	Deviation
First	83	1.041	0.037
Second	110	1.042	0.038
Third	86	1.349	0.187
Fourth	130	1.421	0.192
Total	409	1.227	0.226

According to the results of the table 8, a One Way ANOVA analysis was carried out to test the significance of the differences between the means of the responses in relation to the 'year' variable, (see Table 9).

Table (9)
One Way ANOVA for the Responses according to the 'Year' Variable

Source of Variance	Sum of Squares	df	Means Squares	F-Value	Significance
Between groups	12.815	3	4.272	217.046	0.000
Within groups	7.971	405	0.020		
Total	20.786	408			

It is indicated in Table 9 that there are statistical differences at $\alpha \leq 0.05$ between the means of the study sample responses of the study instrument paragraphs that can be ascribed to the 'year' variable. To ascertain between which school year levels those differences occurred, a post-test comparison was conducted using the least significant difference (LSD) (see Table 10).

Table (10)
The LSD Post-Test

Post-Test Comparisons		Means Differences	Standard error	Significance
First	Second	-0.001	0.020	0.960
	Third	-0.308*	0.022	0.000
	Fourth	-0.380*	0.100	0.000

Volume 19 Number 4 December 2018

Table (10)

Post-Test Comparisons		Means Differences	Standard error	Significance
Second	First	0.001	0.020	0.960
	Third	-0.307*	0.022	0.000
	Fourth	-0.379*	0.018	0.000
Third	First	0.308*	0.022	0.000
	Second	0.307*	0.022	0.000
	Fourth	-0.072*	0.100	0.000
Fourth	First	0.380*	0.100	0.000
	Second	0.379*	0.018	0.000
	Third	0.072*	0.100	0.000

* œ ≤ 0.05

Table 10 shows that there was no statistically significant difference between the first year students' responses and the second year students, while statistically significant differences are found at a<=0.05 between the means of the first year and that of the third year students' in favour of the third year students, and at a<= 0.05 between the means of the first year and the means of fourth year students' responses in favour of the fourth year students.

There were also statistically significant differences at a<=0.05 between the means of the second year and the third year students' responses in favour of the third year students, at a<=0.05 between the means of the second year and the fourth year students' responses in favour of the fourth year students, and finally, at a<=0.05 between the means of the third year and fourth year students' responses in favour of the fourth year students.

Therefore, the interpretive reading of the results according to the 'year' variable shows higher means for the fourth year students' responses compared to the first three years, and for the third year students compared to the first two years. Finally, there was no significant difference between the responses of the first two years.

The researcher ascribes this result to the fact that as university students gain more experience, they start viewing the pedagogical knowledge of their instructors more optimistically than their less experienced counterparts. However, the results could be attributed to the students becoming more adapted to the faculty members across time, so that they become more accepting of the traditional lecture format.

Results Related to the Third Question: "Is there a difference in perceptions of the faculty members' pedagogical knowledge in the Faculty of Education at Imam Abdulrahman Bin Faisal University according to the student's gender (male or female)?"

To answer this question, a t-test was used for the two independent samples to test the statistical significance between the means of the responses for the variable 'the student's gender (male or female)' (see Table 11).

Table (11)
Results of the t-Test of the Independent Data for the Means of the Responses according to the 'Gender' Variable

Student's Gender	Number	Mean	Standard deviation	Degree of freedom	T-value	Significance
Male	170	1.211	0.017	407	1.229	0.220
Female	239	1.239	0.015			

It is evident from Table 11 that there were no significant differences at $\alpha \leq .05$ between the means of the responses that can be ascribed to the student's 'gender'. This indicates that there were no significant differences between the perceptions of the male and female students regarding the faculty members' pedagogical knowledge. The researcher relates the reason for this to the fact that the Faculty of Education does not distinguish between males and females, in line with the Saudi University system. Each person is subject to a unified educational and instructional system and receive the same services. They also share the same activities and educational experiences. Similarly, faculty members, whether male or female, share the same instructional and interactive experiences. Consequently, this helped eliminate any gender differences between students.

Recommendations

Based on the study's results and discussion, the researcher recommended the following:

- Holding training workshops to improve the pedagogical knowledge of the members of the Faculty of Education at Imam Abdulrahman Bin Faisal University.
- Improving the academic programs and courses in the Faculty of Education, in a way that ensures the achievement of a high level in the pedagogical knowledge for all faculty members and students.
- Conducting other studies in this field such as self-assessment of the academic faculty members' pedagogical knowledge, and using several research instruments such as observation, interviews, and documents analysis.
- Performing comparative studies of the pedagogical knowledge for the faculty members in different Faculties of Education at other Saudi universities.

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