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Abstract

The purpose of this study was to investigate social studies teachers' level of use of student-centered approach (S-CA) in Oman and its relationship with some variables. An instrument namely the Level of Use Self-Assessment (LoUS-A) has been developed and administered to collect sufficient data. A sample of (525) social studies teachers from (170) Basic Education schools participated in this study.

The major findings suggest that the teachers were in the (Mechanical Use) and the (Routine) user levels. Significant gender differences showed that females seem to be exhibiting higher LoU, as compared to males.

Based on the results of the study, it was recommended that interventions should be made to address teachers' immediate needs in implementing (S-CA) for teaching and learning. Implications for further research were suggested.

Key words: student-cantered approach, social studies, level of use.

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العلاقة بين استخدام مدخل التعلم المتمركز حول المتعلم ومتغيرات النوع الاجتماعي والتخصص والمؤهل لدى معلمي الدراسات الاجتماعية في سلطنة عمان

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الملخص

تهدف الدراسة إلى التعرف إلى مستوى استخدام معلمي الدراسات الاجتماعية لمدخل التعلم المتمركز حول المتعلم في عمان، وعلاقته ببعض المتغيرات. وقد طور الباحث أداة الدراسة وهي استبانة التقييم الذاتي لتحديد مستويات الاستخدام. وتكون مجتمع الدراسة من جميع معلمي الدراسات الاجتماعية في التعليم الأساسي، وقد اختار الباحث عينة عشوائية طبقية قوامها (٥٢٥) معلما من (١٧٠) مدرسة. وتوصلت الدراسة إلى أن معلمي الدراسات الاجتماعية في المستوى الثالث (الاستخدام الآلي) والمستوى الرابع (الاستخدام الروتيني) في استخدامهم للمدخل، كما أشارت نتائج الدراسة إلى وجود فروق دالة إحصائيا تعزى إلى متغير الجنس تظهر أن المعلمات أعلى مستوى في الاستخدام مقارنة بالمعلمين. وقد أوصت الدراسة بضرورة العمل على تطوير عملية استخدام المعلمين المدخل في العملية التعليمية، كما قدمت الدراسة عدة مقترحات بإجراء مجموعة من البحوث.

الكلمات المفتاحية: التعلم المتمركز حول المتعلم، الدراسات الاجتماعية، مستوى الاستخدام.

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Introduction

This research was in the area of curriculum implementation. According to Marsh & Willis (2003), implementation is "processes of teaching and learning of a written curriculum into classroom situations". In implementing a curriculum, a curriculum plan was translated into reality when teachers execute it with students through teaching and learning processes. Curriculum implementation involved putting prescribed textbooks, syllabuses and subjects into action (Southern African Development Community, 2000), so that an innovation can be put into actual practice in classroom situations (Marsh & Willis, 2003).

As teachers play an important role in the process of change, they need to learn continuously and to master the ways to integrate new ideas or teaching approach with the subjects they teach. More importantly, they have to accept the principle of innovation. Without teachers' highly usage, we cannot expect student-centered approach innovation to be implemented successfully. The success of the educational innovation depends much on what teachers actually do. It is the responsibility of the government and the school administrators to pay attention to teachers' levels of use to promote implementation of an innovation.

Related literature on curriculum change and implementation gives a clear explanation of why an implementation of innovation fails or succeeds. Several studies support the notion that full implementation of curriculum innovation requires high Levels of Use of teachers. In other words, deficiency of teachers' Levels of Use may be the cause of failure of any implementation

of curriculum innovation. Hence, teachers' Levels of Use are described as critical elements to determine whether the implementation of innovation will be successful or not.

Based on the Theory of Concern, and Concern-Based Adoption Model (CBAM) levels of the innovation's use describe the behaviors' of the users and the non-users in regards to the innovation. The focus is not on how they feel, but on what they do in relation to the innovation (Hall & Hord, 2001).

The CBAM does not see implementation of an innovation as a dichotomous event, but rather as a process with different levels; so, based upon research by Hall et al. an eight-level paradigm has been created. The bottom three levels in hierarchical order, non-use, orientation, and preparation, fall within the general realm of the nonuser. The top five levels in hierarchical order, mechanical, routine, refinement, integration, and renewal, encompass the user sphere. The levels demonstrate a continuum of growth from not using an innovation to skill, experience, and looking for ways to alter the existing innovation (Berg, 1993). These Levels of Use are (Schoepp, 2004):

VI- Renewal. It is a state in which the user re-valuates the quality of use of the innovation, seeks major modifications of or alterations to present innovation to achieve increased impact on clients, examines new developments in the field, and explores new goals for self and the system.

V- Integration. It is a state in which the user is combining own efforts to use the innovation with related activities of colleagues to achieve a collective impact on clients within their common sphere of influence.

IVB- Refinement. It is a state in which the user varies the use of the innovation to increase the impact on clients within immediate sphere. Variations are based on knowledge of both short- and long-term consequences for clients.

IVA- Routine. Use of the innovation has stabilized. Few, if any, changes are being made in ongoing use. Little preparation or thought is being given to improving innovation use or its consequences.

III- Mechanical. It is a state of usage in which the user focuses most effort on the short-term, day-to-day use of the innovation with little time for reflection. Changes in use are made more to meet user needs than client needs. The user is primarily engaged in a stepwise attempt to master the tasks required to use the innovation, often resulting in disjointed and

superficial use.

II- Preparation. It is a state in which the user is preparing for the first use of the innovation.

I- Orientation. It is a state in which the user has recently acquired or is acquiring information about the innovation and/or has recently explored or is exploring its value orientation and its demands upon the user and user system.

0- Non-Use. It is a state in which the user has little or no knowledge of the innovation, no involvement with the innovation, and is doing nothing toward becoming involved.

Statement of the Problem

Teachers are the cornerstone of an educational system and are the most important agents for curriculum implementation. They determine the success or failure in implementing curriculum change during the process of teaching and learning (Wan, 2002). Consequently, the Department of Human Resources in Oman has conducted training for Social Studies teachers' to improve the quality of teachers' use of student-centered approach. A major problem that emerges is whether teachers can handle the entire changes placed on them as implementers of the newly introduced teaching approach.

Hall and Hord (2001) found that it is important to discover and identify teachers' levels of innovation use within an educational reform. Similarly, researchers have found that the lack of implementation of curriculum innovation can be the result of teachers' behavior in the teaching and learning process not matching the expectations of authorities of curriculum development (Ridgway, 2005; Peter, 2003; Wyman, 2003; Wan, 2002; Sun, 2001; Keung, 1995).

Veen (1993) pointed out that for any educational innovation, it is important to realize that it is not the view of the innovators about the merits of the innovation that matters, but rather it is the view of the teachers about the innovation that is critical. In the case of this current study, we need to study Social Studies teachers' Levels of Use of student-centered approach in Social Studies teaching and learning and its relationship with several

variables. Many researches have postulated the importance of knowing teachers' Levels of Use in the implementation of curriculum innovation (Savage, 2000; Ying, 2001; Wan, 2002; Desmone, 2005; Edmondson, 2005; Ford, 2006).

Consequently, it is important to examine Social Studies teachers' Levels of Use of student-centered approach in Social Studies teaching and learning. Probably there are some factors that may inhibit the use of student-centered approach in the classroom. Of course, school principals, Social Studies supervisors, and change facilitators are delighted to see the success of Social Studies curriculum implementation by using this innovation. Therefore, they should always have a good command of what Social Studies teachers Levels of Use in the implementation process of it.

Objective of the Study

A major objective of the present study was to investigate the social studies teachers' levels of use of student-centered approach in teaching and learning, and to examine the effect of teachers' gender, specialization and qualification in their use.

Questions of the Study

The following questions guided the investigation.

1. What are the Levels of Use Social Studies teachers have in the adoption of student-centered approach in Social Studies teaching and learning?
2. Do Social Studies teachers' Levels of Use vary among teachers according to their gender, specialization and qualification?

Significance of the Study

It was anticipated that the results of this study would:

- Offer clarifications for the Ministry of Education to facilitate change more effectively for the benefit of the teachers and students.
- Inform school officials, policy makers, service providers, and educators themselves in Oman about the Social Studies teachers' Levels of Use. This may be of value for the authorities to take into consideration and to enhance the positive factors and to avoid the factors that affect Social Studies

teachers' teaching negatively.

• Help the Ministry of Education and Ministry of Higher Education in Oman to develop teacher's preparation program and in-service training programs to energize and sustain teachers' Levels of Use in Social Studies teaching and learning.

Definitions of Key Terms

For the purpose of this study, the following terms had been defined:

Level of Use: According to Hall & Hord (2001) level of use is Level of the innovation's use describe the behaviors of the users and the nonusers in regards to the innovation. The focus is not on how they feel, but on what they do in relation to the innovation. In this study, level of use is level of Social Studies teachers' use of student-centered teaching approach in Social Studies teaching and learning.

Student-centered teaching approach: is an innovation teaching approach for implementing Social Studies inside classes in the Basic Education schools.

Limitations of the Study

The study was limited by the sample that has been used. The results of the study were representative of the levels of use of Student-Centered Approach in social studies teaching and learning in government Basic Education schools of this survey population.

Methodology

Research Design

This study was quantitative in nature and was conducted using a descriptive survey methodology. A descriptive survey was a common method in research (Wallen & Fraenkel, 1991) especially to tally the information acquired from a sample and makes inferences about the social studies teachers' population in Oman.

Participants

Study instrument was distributed in all educational regions in Oman.

50% from the total number of regular Basic Education schools was chosen randomly from each educational region. Then, social studies teachers were chosen from each school. In other words, from the total of 339 Basic Education schools which include 1312 social studies teachers, 170 Basic Education schools participated in the study. Schools sample indicated that there are 787 social studies teachers, 525 of them participated in this study. The sample consisted of 226 male and 299 female.

Building the Questionnaire

As a one of CBAM model dimension, Levels of Use (LoU) provides an effective and reliable way for interpreting teachers' Levels of Use in an innovation. So, it was used in the study for assessing the teachers' actual practice in the use of student-centered approach for teaching and learning in the schools.

This instrument is a self-assessment of the Levels of Use of student-centered approach in teaching and learning, in terms of teacers' behavior towards the approach, based on the original Levels of Use self-assessment questionnaire developed by Hall and Hord. (2001).

The Levels of Use self-assessment (LoUS-A) is an eight level set with a brief explanation next to each. Teachers were asked to decide what level they should be at by putting a tick in the box next to it. The scale addresses eight Levels of Use divided into 2 main levels: nonusers include three levels; (O. Nonuse, I. Orientation, and II. Preparation), and users, involve five levels; (III. Mechanical Use, IV A. Routine, IV B. Refinement, V. Integration, and VI. Renewal).

Validity and Reliability

The pilot study was done by the researcher by sending the modified instruments through e-mail to Gene Hall, one of the widely known experts in this area and the lead author of the Concern-Based Adoption Model (CBAM), and asked him to validate the modified instruments for measuring social studies teachers' use of Student-Centered Approach in social studies teaching and learning. After receiving the feedback from the expert, the statements in the LoU were modified further before being retranslated into Arabic.

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Because the instrument was distributed to an Arab population, the researcher translated the modified instruments into Arabic. To ensure that the translation was accurate, the instrument was translated back into English by a professional who was good in both Arabic and English. Back-translation is the common technique used to translate instrument in a cross-nation research. Further, two bilingual experts in Arabic and English languages revised all the instrument to ensure that the two versions were similar and there were no significant differences between them. The Concerns-Based Adoption Model - Levels of Use is a single item survey, internal consistency reliability measures cannot be calculated for data gathered through it.

Data Analysis

Data scoring was used in LoUS-A by computing items and dividing by the same number. Descriptive analyses was used to obtain the frequency distributions, standard deviations, percentages, and average mean, to be the minimum (0) which indicates nonuse and maximum (7) renewal. The study provided a graphic profile of the LoU groups. Data was also computed to present and compare profiles using the different factors and variables of the study.

In order to answer research question numbers 1, the study used ANOVA to determine if there were significant differences between Social Studies teachers' gender, specialization and qualification regarding their Levels of Use in the adoption of using student-centered approach in Social Studies teaching and learning. Group profiles would also be made with the mean percentile scores of the eight of Levels of Use.

Results

Result of Question One

To answer research question (What are the Levels of Use Social Studies teachers have in the adoption of student-centered approach in Social Studies teaching and learning?), analysis of the individual item shows that the (46.3%) of teachers reported that they were either at Level III (Mechanical use) or IVA (Routine); while (26.5%) of teachers reported even at lower levels, Level 0 (Non-Use), Level I (Orientation) and Level II (Preparation)

and (25.5%) reported themselves to be at higher Levels of Use, Level IVB (Refinement) and Level V (Integration). Only (1.7%) of teachers reported their Levels of Use at Level VI (Renewal). Details of the results are listed in Table 1.

Table (1)
Frequencies and percentage of Social Studies teachers' Levels of Use Self- Assessment

Levels of Use	n	%
0 Non-Use	14	2.7
I Orientation	106	20.2
II Preparation	19	3.6
III Mechanical Use	123	23.4
IVA Routine	120	22.9
IVB Refinement	93	17.7
V Integration	41	7.8
VI Renewal	9	1.7
Total	525	100.0

Result of Question Tow

For analyzing the Levels of Use of Social Studies teachers among their gender a one-way (ANOVA) was used to test gender mean effect. The results of overall (ANOVA) are shown in Table 2.

Table (2)
Univariates's for the Levels of Use based on gender

Effect	Type III Sum of Squares	df	Mean Square	F	Sin.	Eta Squared
Gender	34.514	1	34.514	12.286	0.000	0.023
Error	1469.269	523	2.809			
Total	7451.000	525				

The univariate tests of between-subjects effects yielded that the test is significant, ($F(1,523) = 12.286$, $p = 0.000$). This statistic indicates that there are significant differences between males and females in their reported Levels of Use. The $\eta^2 = .023$ indicates a small effect size, meaning that (2%) of the variation in the dependent variable is attributed to variation on

gender (see Table 2).

For Social Studies teachers' Levels of Use analysis among their gender, a tabulation of the mean for LoU of the males and females are set out in Table (3).

Table (3)
Mean of Social Studies Teachers' Gender Based on their Levels of Use

Variable	Gender	n	Mean	Std. Error	95% Confidence Interval	
					Lower Bound	Upper Bound
Levels of Use	Male Female	226 299	3.07 3.59	0.111 0.097	2.852 3.398	3.290 3.779

In the Levels of Use females indicated a higher LoU than males with mean (3.59) for females and (3.07) for males. This finding revealed that the females had more Level III (Mechanical Use) of S-CA innovation than the males. (See Table 3). This is further illustrated using frequencies and percentage of Social Studies teachers in each Level of Use according to their gender in Table (4).

Table (4)
Frequencies and Percentage of Social Studies Teachers in Levels of Use Based on Gender

Levels of Use	Gender			
	Male		Female	
	n	%	n	%
0 Non-Use	9	4.0	5	1.7
I Orientation	55	24.3	51	17.1
II Preparation	12	5.3	7	2.3
III Mechanical Use	52	23.0	71	23.7
IVA Routine	49	21.7	71	23.7
IVB Refinement	35	15.5	58	19.4
V Integration	10	4.4	31	10.4
VI Renewal	4	1.8	5	1.7
Total	226	100.0	299	100.0

For the respondents' Levels of Use analysis among groups of specialization, the Social Studies teachers in Basic Education schools were divided into

two groups: history and geography. A one-way (ANOVA) was used to test specialization mean effect. The results of overall (ANOVA) are shown in Table (5).

Table (5)
Univarsiates's for the Levels of Use Based on Specialization

Effect	Type III Sum of Squares	df	Mean Square	F	Sig.	Eta Squared
Specialization	2.206	1	2.206	0.798	0.381	0.001
Error	1501.577	523	2.871			
Total	7451.000	525				

The univariate test of between-subjects effects yielded that the test was not significant, (F (1,523) = 0.798, p = 0.381). This statistic indicates that there were no significant differences between the two groups of specialization in their reported Levels of Use. The $\eta^2 = 0.001$ indicated a small effect size, meaning that (0.1%) of the variation in the dependent variable was attributed to variation in teacher's specialization (see Table 5). A tabulation of the mean for LoU of the two groups is set out in Table (6).

Table (6)
Mean of Social Studies Teachers' Specialization based on their Levels of Use

Variable	Specialization	N	Mean	Std. Error	95% Confidence Interval	
					Lower Bound	Upper Bound
Levels of Use	History	222	3.44	0.114	3.218	3.665
	Geography	303	3.31	0.097	3.119	3.501

The Social Studies teachers for both history and geography had Level III (Mechanical Use). In addition, from Table 6, it appears that both groups, history and geography, had close mean in overall Levels of Use with mean (3.44) for history and (3.31) for geography. This is further illustrated using frequencies and percentage of Social Studies teachers in each Level of Use according to their specialization in Table (7).

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Table (7)
Frequencies and Percentage of Social Studies Teachers in Levels of Use Based on their Specialization

Levels of Use	Specialization			
	History		Geography	
	n	%	n	%
0 Non-Use	7	3.2	7	2.3
I Orientation	37	16.7	69	22.8
II Preparation	7	3.2	12	4.0
III Mechanical Use	55	24.8	68	22.4
IVA Routine	54	24.3	66	21.8
IVB Refinement	42	18.9	51	16.8
V Integration	18	8.1	23	7.6
VI Renewal	2	0.9	7	2.3
Total	222	100.0	303	100.0

For the analysis of the Levels of Use of Social Studies teachers among different groups with varied qualifications, the Social Studies teachers in Basic Education schools were divided into three groups: Sultan Qaboos University, Colleges of Education under Ministry of Higher Education, and overseas universities.

A one-way (ANOVA) was used to test specialization mean effect. The results of overall (ANOVA) are shown in Table (8).

Table (8)
Univariates's for the Levels of Use Based on Qualification

Effect	Type III Sum of Squares	df	Mean Square	F	Sig.	Eta Squared
Qualification	1.951	2	0.976	0.339	0.713	0.001
Error	1501.832	522	2.877			
Total	7451.000	525				

The univariate test of between-subjects effects yielded that the test was not significant, ($F(2,522) = 0.339$, $p = 0.713$). This statistic indicates that there were no significant differences between the three groups of qualification in their reported Levels of Use. The $\eta^2 = 0.001$ indicates a small effect size, meaning that (0.1%) of the variation in the dependent variable was

attributed to variation on qualification (see Table 8). A tabulation of the mean for LoU of the three groups is set out in Table (9).

Table (9)
Mean of Social Studies Teachers' Qualification Based on their Levels of Use

Variable	Qualification	N	Mean	Std. Error	95% Confidence Interval	
					Lower Bound	Upper Bound
Levels of Use	SQU	186	3.43	0.124	3.186	3.674
	CoE	278	3.35	0.102	3.153	3.552
	OU	61	3.23	0.217	2.803	3.656

The Social Studies teachers in all groups of qualification had Level III (Mechanical Use). In addition, from Table 9, it appears that all groups of qualification had close mean in overall Levels of Use with mean (3.43) for teachers who graduated from Sultan Qaboos University, (3.35) for teachers who graduated from Colleges of Education and (3.23) for teachers who graduated from overseas universities. This is further illustrated using frequencies and percentage of Social Studies teachers in each Level of Use according to their qualification in Table (10).

Table (10)
Frequencies and Percentage of Social Studies Teachers in Levels of Use based on their Qualification

Levels of Use	Qualification					
	SQU		CoE		OU	
	n	%	n	%	n	%
0 Non-Use	5	2.7	7	2.5	2	3.3
I Orientation	33	17.7	60	21.6	13	21.3
II Preparation	5	2.7	10	3.6	4	6.6
III Mechanical Use	45	24.2	65	23.4	13	21.3
IVA Routine	50	26.9	57	20.5	13	21.3
IVB Refinement	31	16.7	51	18.3	11	18.0
V Integration	14	7.5	22	7.9	5	8.2
VI Renewal	3	1.6	6	2.2	0	0.0
Total	186	100.0	278	100.0	61	100.0

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Discussion

The result of the research showed that in the use of (S-CA) in Social Studies teaching and learning, around forty seven percent of teachers (n=243) reported to be at the levels of III (Mechanical use) and IVA (Routine) and around twenty four percent at Level I (Orientation) and level II (Preparation). The report indicated that the majority of Social Studies teachers' Levels of Use was in level III (Mechanical use) and IVA (Routine).

About these two (Hall & Hord, 1987) pointed out the characteristics of persons at Level III (Mechanical Use). These people were adapting to the change and were inefficient in the use of time, materials and resources. They were making changes but focusing on short term, day to day use of the innovation. This often resulted in disjointed and superficial use and yet they expected to increase efficiency in the innovation. The teachers at Level IVA (Routine) established routines. Their use of the innovation was stabilized. They did little preparation or gave little thought to improve innovation use. They were onlookers and were waiting for other people's arrangements. They had no plans and no ideas of making any modifications. They were unchanging in their pattern of use. Summarily, Teachers at Level III (Mechanical use) and IVA (Routine) acted as followers. They were passive in the use of (S-CA) in Social Studies teaching and learning. They did not have their own ideas but just followed the instructions given by the Ministry to meet the minimum requirements.

A few Social Studies teachers were at the Integration Level of Use. This suggested that the Social Studies teachers preferred to work independently and in an isolated environment. It is then argued that there is a need for the change facilitators to tailor programs to develop collaborative work cultures within schools. This may help to reduce professional isolation of teachers (Fullan, 1991) and to raise the effectiveness of implementing student-centered approach.

A few was at the Renewal Level of Use. This may reflect two things. First, the Social Studies teachers have no time or energy to carry out major modifications as they have to spend most of their time on day to day issues and there is little time for reflection. Second, they may not have seen the need to have major modifications. In this researcher's view, the reasons for

this phenomenon are manifold. First, the student-centered approach is not treated seriously by the school teachers and principals. Second, teachers> performance in implementing student-centered approach in teaching and learning is never assessed. Third, the lack of motivation and inadequate professionalism of teachers are the main reasons for deterring them from advancing to the Renewal Level of Use regarding the implementation of (S-CA). Those teachers who were at the Level of V (Integration) and VI (Renewal) were the important teachers. They represented a quarter of the respondents. They were more active. The success of the (S-CA) innovation in the school in fact depends largely on them.

In fact, the decision to begin the use of (S-CA) in Social Studies teaching and learning was, to some degree, not made by teachers. It was decided by the Ministry. In order to meet the expectations of the authorities, all teachers should have begun the use of (S-CA) in teaching and learning. So they should all have been at least at III (Mechanical use) level. Around half of the teachers were assessed as at Level III (Mechanical use) and IVA (Routine) level. The result could be explained that though the teachers had begun using the (S-CA) in teaching and learning, some of them still remained at the (non-user) state of mind. These teachers were quite insecure, uncertain and not confident in their use of (S-CA) in teaching and learning.

Hall and Hord (1987) remark that Levels of Use can serve as a valuable diagnostic tool for planning and facilitating the change process. In this connection, Hall and Hord (2001) highlight that each person's Level of Use and success with a change is in large measure influenced by the facilitation he or she receives. If no support and facilitating interventions are offered, many will never fully implement the innovation, and others will remain nonusers. Further, those who are at LoU III Mechanical use need interventions that will help them move beyond this level, or they may adapt the innovation to make it easier for them to manage, or they may stop using the new practice altogether. There are, however, affective actions that change facilitators can take to assist individuals in moving up the use levels.

Marsh & stafford (1988) reviewed a number of CBAM studies and shared their views. He recognized that "the LoU data provide important cues about the type of assistance each teacher might need to achieve higher levels of

implementation." In the context of this study, the information provided by LoU concerning the implementation of student-centered approach can be helpful for change facilitators to provide timely specific assistance to teachers concerned. For example, a Social Studies teacher on LoU III (Mechanical Use) is likely to implement (S-CA) in a superficial, stepwise fashion, without caring much for students' needs and attitudes. Giving this Social Studies teachers more encouragement, more information about the innovation, or more advice about how to use it may help them to implement (S-CA) more effectively. In addition, Peter (2003) suggested that for teachers at the level of Mechanical Use, school leaders should provide them with practical workshops or guidance for solving technical questions so that they could become routine user of the innovation. For the teachers at the level of routine, school leaders should give praise and recognition to reinforce the teachers' efforts to encourage further refinement for the students.

Based on the result of question 2, the quantitative analysis revealed that the Social Studies teachers both male and female had level III (Mechanical Use). In the area of Social Studies teachers' Levels of Use, the result indicated that the female teachers had a higher mean than the males. This finding revealed that females were actively engaged with the innovation in the schools and they made adaptations in managing time, materials, and other logistics to master the use of the innovation (Hall & Hord, 2001).

It appears that the findings of this study match the results of some research carried out by other researchers. For example, Blackwood (2001) found that the females had significantly higher Level of Use of the innovation than did the males. On the other hand, some studies indicated no significant differences between males and females regarding their Levels of Use in the adoption of the innovation (Marcinkiewicz, 1994; Law, 2002). For example, Marcinkiewicz (1994) in the study titled "Computers and Teachers: Factors Influencing Computer Use in the Classroom" the findings in the Levels of Use showed no significant differences between males and females. In addition, Law (2002) reported that there was no relationship between gender and Level of Use. His report indicated no significant differences between males and females regarding their Levels of Use in the adoption of the innovation.

In the area of Levels of Use findings, why do females have higher Level of Use than males in the adoption of student-centered approach? It is possible in the researcher's view, to say that this is because the females had higher concerns toward the (S-CA) than the males. Also, female teachers are very concerned about the supervisors' and principles' visits reports and they try to do their best in their use of (S-CA).

For respondents' Levels of Use analysis among groups of specialization in the adoption of student-centered teaching approach the history and geography teachers had both the same Levels of Use (III Mechanical Use). The findings showed that there were no significant differences between the responses of history and geography teachers regarding their Levels of Use in the adoption of (S-CTA).

The results of this study match the results of a research carried out by Blackwood (2001) which indicated that there were no significant differences regarding the levels of the innovation use between the different academic subjects.

The reason can be recounted to explain why history and geography teachers had no significant differences in their Level of Use regarding their average mean in the adoption of (S-CTA). is the teachers' preparation programs for both history and geography teachers had mostly the same courses under Social Studies teachers' preparation program.

The quantitative analysis revealed that, as in the case of previous variables, the Social Studies teachers with all groups of qualifications had the same Levels of Use (III Mechanical Use). The findings showed that there were no significant differences between the responses of teachers from all groups of qualification regarding their Levels of Use in the adoption of (S-CTA).

It is possible to infer, that the groups of Social Studies teachers' qualifications had no significant differences regarding their Levels of Use in the adoption of the student-centered teaching approach due to the teachers preparation programs of three institutions are quite similar especially, Sultan Qaboos University and the Colleges of Education under the Ministry of Higher Education.

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Conclusion and recommendations

The findings of this study indicated that the use of (S-CA) in social studies teaching and learning in the Basic Education schools has not widely occurred. The participating schools were slow in taking up the use of (S-CA) recently installed and were still at a non-user to early user in the adoption of innovation. At such level, any future staff development activities facilitating innovation adoption must be directed to address the non-user levels of teachers as priority.

The implementation of (S-CA) innovation involved a complex process of change for the participants and the organization. It required planning and commitment, as well as time and money. It was expected that school principals and the social studies teachers should have brought concerted efforts, with different ongoing expertise, support and resources, to enhance the use of (S-CA) in social studies teaching and learning. To ensure success, Yuen, Low & Wang (2003) concluded that it was not simply a case of innovation adoption, but rather a process of innovation, which required both financial and training support for schools, as well as cooperation between teachers and school leadership.

To better understand the developmental process and progress of teachers involved in implementing the student-centered approach, longitudinal studies of varying scales, ranging from school level scale to educational region wide scale, following the CBAM are recommended. Such studies may yield more information to build up a fuller picture concerning the implementation of (S-CA). Additionally, further research should be done to determine the most effective methods available to move social studies teachers from the non-user levels of the innovation into user levels, to achieve beginning and more highly sophisticated use.

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