

Evaluating Lifewide Learning Habits of Academicians for Sustainable Development

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Abstract

In today's higher education institutions in which sustainable development has been highly emphasized, individuals have changed the understanding of graduates of higher education; as such universities have emerged into a reconstruction period. In such a process, universities have been in need of academicians who are well development in both personal and professional domains. The concept of Lifewide learning, which is an important sustainable development tool, has underlined the fact that people should graduate as wholly-developed people to fulfill the needs of future societies, which releases the idea that academicians are to be role models for students. This study reflects on the research designed to develop and test an instrument that could identify the component of an academician's Lifewide learning habits. Because of the complex nature of the Lifewide learning, considerable attempts were made in order to handle the process of classifying the cognitive, affective, social, technical and cultural domains related to academicians working in faculties of education. The developed instrument was trialled with 50 academicians, and the data was subjected to an explanatory factor analysis, allowing the identification of 6 sub-dimensions of Lifewide learning. These dimensions appeared to be capable of differentiating between problem-solving, professional habits, cultural interaction, leadership, care-based habits and leisure habits of academicians. The final version of the scale was applied to 211 academicians from faculties of education at 30 universities via "Google Drive", and Lifewide habits of related people were assessed regarding their gender, title and department. Depending on the collected data, Lifewide learning habits of academicians were discussed, and some suggestions were proposed to support their professional and personal development.

Keywords: lifewide learning, professional development, personal development

Introduction

The Recent Changes in Higher Education Institutions

Recently, the concept of sustainability has gained a lot of importance in higher education institutions. In order to educate individuals in a future-oriented way, higher education institutions are supposed to fulfill their facilities for learning and the life itself. Today it has been difficult to pursue individuals' preferences, choices and expectations as the modern world has made them confront with various challenges never before encountered. As Barth and the others (2007) stated higher education for sustainable development aims at enabling people not only acquire and generate knowledge, but also to reflect on future effects.

Globalization and industrialization have led universities and other educational institutions to internalize educational reforms in the twenty-first century. Such institutions have charged a lot of responsibilities including enhancing awareness, competencies, skills, values, etc. These inevitable trends have made universities transform themselves in order to keep track of new ideas and developments in social, economic, cultural, etc. dimensions of life in the liquid age. As Altbach and Knight (2010) pointed out, international activities of universities dramatically expanded in volume, scope, and complexity during the past two decades. These activities range from study-abroad programs, allowing students to learn about other culture, to providing access to higher education in countries where local institutions cannot meet the demand. Furthermore, other activities such as skills of students, enhancing foreign language programs and providing cross-cultural understanding have been emphasized in the last two decades. In addition to this, as Ilisko, Skrinda and Mičule stated, schools need to equip learners with the skills and values needed to cope with present and future demands. Universities need to prepare students to play a significant role in society. Each student lives within the interconnected framework of political, cultural, economic and ecological dimensions that influence them in significant ways.

In the 21st century, to train individuals in various domains is significant to prepare them as wholly-developed citizens for future societies. In Europe some outstanding reforms have been come out by Bologna Process that has been going on over a decade. The process can be seen as an educational restructuring process that is outlined a European level to be implemented in the nations of Europe and the other nation's part of the process (Fejes, 2006, p: 203). In the face of continuously changing circumstances it is possible to outline a lot of policies and agreed implications that have well known impact on Higher Education institutions. Among the agreed implications there are a lot of reforms to help achieve the "Europe of Knowledge" which can be seen the greatest dream of Bologna Process. Moreover lifelong learning is constructed as a central part of this knowledge-based society and as a way to create the employable citizen, which is a way to compete with the surrounding world. It is also argued that a Europe of lifelong learning will empower citizens to become more mobilized, and to make Europe more democratic, inclusive and tolerant (Fejes, 2006). There have been exhaustive attempts of higher education institutions related to lifelong learning.

Lifewide Learning and Sustainability

Nowadays the work of universities is getting hard and complex, as they are expected to achieve many different goals in various fields of the life. The most significant dilemma in today's societies is to handle constantly changing status of information and technology, which makes it compulsory to keep track of new ideas and developments in all domains. As Baumann (2006) stated universities have become part of a 'liquid life'. Instead of being enclosed and inner-directed, they are today becoming outer-directed and liquid. Accordingly, life-long learning competencies have been indispensable principles for higher education.

Life-long learning can be simply defined as "all learning activities taken throughout life" (European Commission 2002:9). While life-long learning describes what an individual learns throughout the entire lifespan, Lifewide learning represents the fact that learning can take place in all fields of the life such as work, family, travelling, volunteering, etc. Lifewide learning concept is not totally novel (Jackson, 2011; Clark, 2005). Dewey argued that to provide education that was effective in preparing people for life we must relate education much more closely to life. He also argued that before educators designed educational experiences they must first understand the nature of human experience. Armed with this theory of the role of experience in learning, educators could set about organizing subject matter in a way that took account of students' past experiences and provided them with new experiences to stimulate their development, which can be seen in philosophical underpinning for Lifewide learning and education (Jackson, 2011).

It is operational to set time, place and people in the concept of Lifewide learning. In other words, the coordination of time, place and people can be adapted for individuals, their needs, interests, etc. As Yip (2002) stated Lifewide learning is a breakthrough of the limitations, so that it enables students to have a special feeling and motivation. There are various scopes for students to enhance their learning without any borders for time, place and people.

Today higher education institutions are expected to present a leading education to provide students with whole development. Lifewide learning is directly related to personal development of individuals, which is a desirable feature for today's graduates. Furthermore, it enables people to improve themselves cognitively, socially and personally. Lifewide education makes it possible to train graduates well developed both in their own courses and in different ways of life – sports, art, travel, parental issues, etc. Students themselves have become "learning nomads", increasingly inhabiting all kinds of social and economic situations that afford different kinds of learning (Barnett, 2011). In a rapidly changing world, it is important for students to have a lot of experience and knowledge in various parts of life. Hence, universities ought to provide their students with effective settings in various scopes. An undergraduate student should reach a lot different places to develop herself in various fields. Barnett (2011:26) stated some learning activities and processes a student may be involved such as within a course-accredited or not; voluntary courses, courses unrelated to students' own fields. Therefore, it has been so significant for academicians to be good role-models for their students attending universities. In order to enhance their point of view in every aspect of the life, they should lead their path in various domains.

The concept of sustainable development and Lifewide learning have lots of things in common. Educators have started to review learning-teaching practices, assessment and evaluation techniques used up-to this era. To fulfill the needs of future societies

various aspects have been accepted as crucial such as creativity, critical thinking, decision-making, problem-solving, using information and communication technologies effectively, conflict-management. All such concepts have been emphasized and aimed by the understanding of sustainable development and Lifewide learning. They both have combined academical, social, cultural, etc. competencies to enhance individuals' life capabilities for future. Barth and the others (2007) stated eight key competencies for sustainable development:

- competency in foresighted thinking,
- competency in interdisciplinary work,
- competency in cosmopolitan perception, transcultural understanding and co-operation,
- competency in participatory skills,
- competency in planning and implementation,
- capacity for empathy, compassion and solidarity,
- competency in self-motivation and in motivating others,
- distanced reflection on individual and cultural models (Hann,2006).

Lifewide learning habits include a lot of features enabling people to improve themselves in various domains of life. The competencies cited above serve also as Lifewide learning habits which are supposed to be possessed by graduates of today's universities.

Aim of the Study

The aim of this research is to develop a reliable scale for Lifewide learning. It has been also aimed to identify the Lifewide learning habits of academicians working at the faculties of education in Turkey.

Method

This study is built with a structure where quantitative analysis method is used. Selected by random sampling method, the investigated statistical population of this study is 211 academicians working at faculties of education.

The Development Process of the Scale

As the first step in the design of an instrument is to identify the potential content of habits and factors, an initial literature review was conducted in order to identify the most likely components on the basis of existing research-Lifewide learning habits. The components of Lifewide learning identified in other studies (Jackson, 2011) highlight the complex notion of the task of the research project. Lifewide learning comprises various dimensions ranging from cognitive, physiological, affective, social, technical and cultural domains, which makes the research interdisciplinary in its scope. Existing literature indicated that there at least six broad categories that can be identified as making a substantial contribution to Lifewide learning. The identified categories seem to be inter-related, trans-disciplinary and cumulative.

In each component an initial list of Lifewide learning was generated by reviewing the literature from multiple sources, and it was formed as whole 5-point Likert-type scale. In order to determine the accuracy of the statements six educationalists controlled

the scale and expressed their ideas about it depending on the theoretical framework outlined in the literature and scale development principles. Even though there is a range of studies which have identified variables that have an impact on life-long learning, few attempts have been made to explore the notions of the Lifewide learning. Therefore, this study has made an attempt to contribute from a certain perspective to identify variables and relationships between them. It also shows that the components mentioned above are likely to influence each other in a dynamic way.

It was firstly necessary to conceptualize and restrict the broad notion of Lifewide learning concept so as to develop a holistic view of it. The term Lifewide learning is a concept that requires a careful definition as it includes a lot of formal and informal discourse, which has been a challenging situation for the identification of the components of the scale. As Clark (2005; 54) stated Lifewide learning generally refers to the experiences that take place beyond the classroom. This interpretation of Lifewide learning is about experiential learning in authentic environments. As such, it mainly concentrates on the formal and non-formal dimensions, rather than on the informal.

The draft instrument was piloted with a cohort of 50 academicians working at the faculty of education. The respondents included academicians from different departments with various titles. Following piloting, a factor analysis was identified as an appropriate means of analysing the responses to the scale as it makes it possible to diminish a large set of items to a smaller set of components. Then it would be suitable that these factors could be used to determine subscales of items for the assessment of those components. In order to get a more coherent data set, the second phase of the study was undergone with a cohort of 211 academicians. Then it was possible to eliminate items that were proved to be unclear for serving the purpose of the scale. While the KMO value of the scale was found as .85, the result of Barlett's test was found significant (.000). After Varimax rotation carried over, the scale was reduced to 33 items which emerged as statistically significant from the factor analysis. Moreover, a small number of others were eliminated as they were found to have statistical usefulness. The total experienced variance of the scale in-question was calculated as 55,915%, which is a valid value in most of the social studies. Furthermore, the rotated factor matrix indicated that the scale has 6 sub-scales, as it can be seen in Table 1.

Table 1
Rotated Factor Matrix of the Developed Scale

Items	Problem-Solving	Professional Habits	Cultural Interaction	Leadership	Care-Based	Leisure Habits
38	.877	.062	.103	.096	.164	.069
39	.864	.104	.162	.160	.152	.050
40	.832	.250	.078	.121	.159	.058
41	.745	.152	.092	.185	.202	-.044
42	.738	.194	.024	.012	-.025	-.002
43	.516	.214	.253	.241	-.040	-.013
17	.456	.318	.096	.196	.292	.197
14	.227	.719	.055	.084	.106	.231
1	.147	.687	.076	.216	-.083	-.299
12	.144	.652	-.040	.156	.109	.095

Sequel to Table 1 see on the next page.

Sequel to Table 1.

Items	Problem-Solving	Professional Habits	Cultural Interaction	Leadership	Care-Based	Leisure Habits
3	.250	.604	.120	.134	.183	-.240
22	.207	.559	.257	.111	.348	-.145
4	.214	.539	.289	.256	.182	-.322
10	.131	.477	.316	.097	.281	-.077
11	.094	.451	.284	.145	.116	.244
33	.118	.201	.768	.047	.088	.021
32	.201	.136	.727	.018	-.137	.036
31	.033	.142	.673	.008	.122	.218
30	.125	-.022	.533	.164	.234	.115
24	.125	.212	-.010	.776	-.037	.015
5	.149	.185	-.078	.757	.137	.136
20	.167	.248	.120	.675	.033	.050
8	.189	-.019	.280	.613	.168	-.140
13	.096	.334	.199	.391	.264	.073
28	.091	.137	-.041	-.034	.620	.062
26	.119	.229	.009	.018	.596	.151
29	.155	-.092	.286	.023	.577	-.077
25	.145	.172	.156	.239	.554	.198
9	-.030	.015	.407	.282	.519	-.155
27	.081	.364	-.091	.125	.449	.126
35	.008	.019	.114	.067	.056	.805
36	.070	-.199	.097	-.020	.185	.725
34	.106	.423	.146	.092	.006	.482

The successive statistical operations made it clear to identify six key components of Lifewide learning. It should be emphasized that Lifewide learning is a broad and developing concept, which makes it difficult to set certain borders between its main scopes. However, in this study was possible to determine six basic components by detailed scrutiny of items on six factors. Regarding to the statistical analysis and item scrutiny, the six components were subsequently titled as “Problem-Solving Habits”, “Cultural Interaction Habits”, “Leadership Habits”, “Care-Based Habits”, “Professional Habits” and “Leisure Habits”.

Problem-Solving Habits: It refers to the habits applied by academicians when they have a problem or a conflict.

Cultural Interaction Habits: Inter-cultural habits belongs to this group.

Leadership Habits: It refers to the activities related to leadershipship habits of academicians.

Care-Based Habits: It deals with activities related to caring oneself and others.

Professional Habits: It is concerned with job-related facilities.

Leisure Habits: It includes social, sports activities.

In order to determine the reliability of the developed scale, Cronbach alpha internal consistency was calculated as .88. Another analysis that was conducted for determining

the reliability of the scale based on the difference between top and bottom groups of 27%. Therefore, it was supposed to remove the items that were not significant according to t value scores. However, no items were identified with such a value.

Participant Characteristics

In this study, the developed scale was conducted to 211 academicians working at the Faculties of Education in order to identify the Lifewide learning habits of lecturers and to determine the effects of some variables on such habits (gender, department, title). The population of the research consisted of 102 females and 109 males working at the departments of Turkish Language Teaching, Science Education, Maths Education, Primary Education, English Language Teaching, Preschool Education, Educational Sciences, etc. The scale was sent to the participants via Google Drive. The Lifewide learning habits of participants from faculties of education at 30 universities were assessed regarding their gender, title and department.

Results

The analysis of the present study is carried out with the statistical program “Spss 16.0 for Windows” For the examination of the data, “descriptive analysis” method was used, and the data obtained in this study was analyzed by using Kolmogorov-Smirnov, Levene’s test of homogeneity, independent t-test and one-way ANOVA. The data obtained accordingly were summarized and interpreted.

Table 2 indicates the minimum and maximum scores, means and standard deviations academicians got for the whole scale and its dimensions.

Table 2

Minimum and Maximum Scores, Means and Standard Deviations of Academicians

	N	Min.	Max.	\bar{X}	Sd
The Whole Scale	211	76,00	165,00	135,27	12,53
1. Dimension: Problem-Solving Habits	211	16,00	35,00	30,55	3,21
2. Dimension: Professional Development	211	18,00	40,00	34,76	3,75
3. Dimension: Cultural Interaction Habits	211	6,00	20,00	16,41	2,72
4. Dimension: Leadership Habits	211	10,00	25,00	19,24	3,04
5. Dimension: Care-Based Habits	211	8,00	30,00	24,47	2,95
6. Dimension: Leisure Habits	211	3,00	15,00	9,83	3,12

As it can be seen in Table 2, the minimum score is 76 and the maximum score is 165. The mean of academicians’ scores is 135,27, which means that academicians have high levels of Lifewide learning habits as their mean is higher than the scale’s mid-point.

Depending on the data gathered from Kolmogorov-Smirnov test, the data of the study was found normally distributed for both females and males ($p = .551 / .710$). Moreover, the homogeneity of variances assessed by Levene’s Test for Equality of Variances was calculated as .0,91. As these values were higher than .05, the data was accepted as normally distributed and homogeneity. As such, independent t-test as a parametric test was applied to the data in-question. As regards independent t-test results, no significant difference was observed in participants’ Lifewide learning habits respected to their gender

variables. Table 3 shows the independent t-test results showing the difference of academicians’ Lifewide learning habits regarding their genders.

Table 3
Independent t-Test Results Showing the Gender Difference

Gender	N	\bar{X}	Sd	T	P
Female	102	135.03	11.09	-.272	.344
Male	109	135.50	13.78		

There was no significant gender difference in average scores on the Lifewide learning habits ($t=-.272, p>.05$). It is also possible to see the same results when examining the Figure 1.

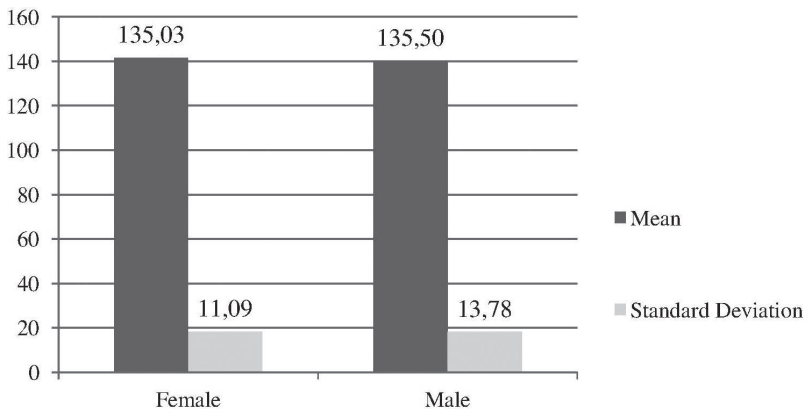


Figure 1. The Lifewide Learning Habits

Depending on the data gathered from Kolmogorov-Smirnov test, the data of the study was found normally distributed for all departments ($p>.05$). Moreover, the homogeneity of variances assessed by Levene’s Test for Equality of Variances was calculated as .514. As these values were higher than .05, the data was accepted as normally distributed and homogeny. As a result, one-way ANOVA as a parametric test was applied to the related data. ANOVA results showed that no significant difference was found in participants’ Lifewide learning habits respected to their departments.

Table 4.
ANOVA Results Showing the Department Difference

ANOVA	Sum of Squares	sd	Mean Square	F	P
Between Groups	1497,873	11	136,170	,861	,580
Within Groups	31473,729	199	158,159		
Total	32971,602	210			

$p<0,05$

There was no significant department difference in average scores on the Lifewide learning habits of academicians. It is also possible to see the same results when examining the Figure 2.

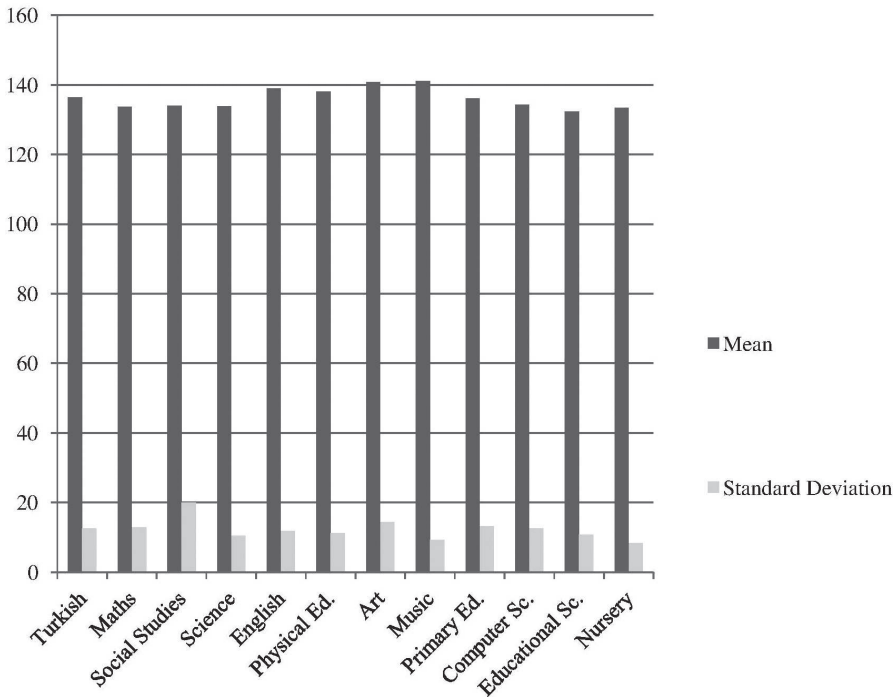


Figure 2. Scores of the Lifewide Learning Habits of Academicians

Concerning the data gathered from Kolmogorov-Smirnov test, the data of the study was found normally distributed for all titles ($p > .05$). Moreover, the homogeneity of variances assessed by Levene's Test for Equality of Variances was calculated as .118. As a result of ANOVA analysis no significant difference was found in participants' Lifewide learning habits respected to their titles. Table 4 shows the ANOVA results showing title difference.

Table 5
ANOVA Results Showing the Title Difference

ANOVA	Sum of Squares	sd	Mean Square	F	P
Between Groups	561,855	4	140,464	,893	,469
Within Groups	32409,747	206	157,329		
Total	32971,602	210			

$p < 0,05$

There was no significant title difference in average scores on the Lifewide learning habits of academicians. It is also possible to see the same results when examining the Figure 3.

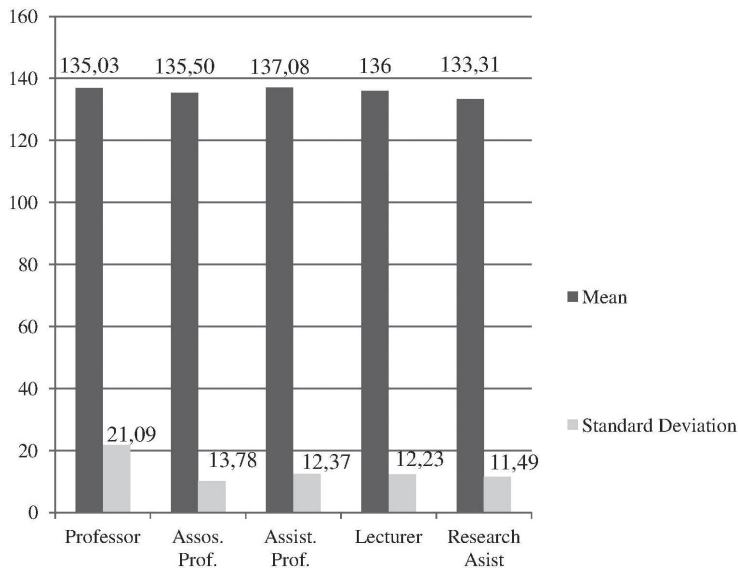


Figure 3. Lifewide Learning Habits of Academicians.

Discussion

Recently, higher education institutions have been seen as educational institutions responsible for individuals’ social sustainability. Because there is a clear linkage between sustainable development and Lifewide learning, the learning and teaching process in higher education institutions should be more functional and developmental. In order to be succesful in such a task, universities and their academic staff are to fulfill various roles with respect to education and Lifewide learning. Thus, academicians have key roles not only to enhance individuals’ job-related activities but also their personal development for a future-oriented sustainable life.

The aim of this research is to develop a scale in order to determine academicians’ Lifewide learning habits. The pre-trial form of the scale was applied to 50 academicians and explanatory factor analysis was conducted so as to identify the construct validity on the collected data. In consequence, 33 items of the scale had six basic sub-dimensions. There were similarities between the definitions that had been put forward in previous literature by Jackson (2011) in relation to the components. Based on the findings concerning the reliability and validity analyses, the scale can be suggested as valid and reliable in order to determine undergraduate academicians’ Lifewide learning habits. Using or adapting this scale is believed to contribute to the future of higher education institutions and their academicians a lot.

In order to conceptualize the multidimensional and complex notion of Lifewide learning, a scale for the Lifewide learning habits of academicians working at faculties of education. After this process, the scale was applied to 211 participants in 30 leading universities in Turkey. Depending on the data assessed by comparing the mean scores of the participants, it can be identified that participants take part in activities related to Lifewide learning. In this research, it has been found that the average scores of acade-

micians got from “Lifewide learning habits scale” are a bit higher than the scale’s medium scores. Thus, the Lifewide learning habits of academicians are high. It can be suggested that by providing students with various activities or facilitating them, their interests and habits can be encouraged in all components of Lifewide learning. As the whole development of higher education students is an indispensable principle for Lifewide education, students should be presented opportunities in all domains of life with the help of their instructors. Moreover, it is academicians’ priority to organize their work processes themselves. This means that there is not any directing third party. Their teaching and social activities may take place on individual basis, which engage them for their sustainability.

The results of the analysis presented in the current study provide support to the hypothesis gender does not have a significant and positive impact on Lifewide learning habits of academicians. This finding illustrates the significance of considering multiple dimensions of learning for both genders when investigating the benefits of learning in various settings. Moreover, there was no significant difference found among the academicians in relation to their departments. Such a finding can be interpreted as the departments of the faculty have similar academician profiles, so the scale can be applied to different departments of various faculties. Generally academicians are supposed to act with a certain objective in mind, which is improving themselves all the time –with the borders of their faculties or outside of them. For this reason, they participate in many contexts and try various strategies for their professional and personal lives. Besides, cooperation among academicians is a cornerstone for professional development. As Bezzina (2006) stated the best way to implement professional development is through cooperation and it was necessary to keep upto-date with developments in the teaching profession.

The study also has tried to highlight the significance of empirically investigating the effects of titles on Lifewide learning habits of academicians for sustainability. It is perhaps not surprising that there is no significant difference among the participants in line with their Lifewide learning habits, since the concept of Lifewide education consists various activities for academicians although their workload is so much. The academicians usually have a basic intention to learn something through voluntary activities, which can be attributed as an important feature for sustainable development. As a consequence, Lifewide learning habits are facilitating tools for sustainable development.

To stimulate the habits of Lifewide learning in all people in the community, including students and teachers, it is necessary to fortify the relationships between different institutions and facilities. The fundamental factor for consolidating sustainability and Lifewide learning is renovation the old in more effective way for academical, social, technological development.

Recommendations for Further Studies

All these findings signal the need for further empirical research that seeks to investigate the casual relationships among the multiple dimensions of Lifewide learning, since learning is a dynamic and continuous process. Research that can be fulfilled with academicians from different departments can be suggested in order to get ahold of an overview on academicians’ Lifewide learning habits. From the results of the present

analysis, it can be deduced that both formal and informal applications at higher education institutions adopted by academicians are cornerstones for developing competencies of university students for sustainable development.

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