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RESEARCH ARTICLE

BASIC AUTO-CAD TRAINING SERVICES IN THE COMMUNITY OF VICTORIA AND PILA, LAGUNA: ROAD TO ACCESSIBILITY, CIVIC CONSCIOUSNESS, EMPLOYMENT, AND SOCIAL SUPPORT (ACCESS).

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Abstract

A research study and extension service on Auto-CAD Training as implemented by the College of Engineering of Laguna State Polytechnic University, Santa Cruz Campus in the community of Victoria and Pila Laguna is described in this paper.
The purpose of research and development unit as well as the extension service is to comply with the goal of the program to further strengthen research and community extension as the major functions of the university and to intensify the organization of community extension programs and services that are relevant and responsive to the needs of depressed communities in the Province of Laguna, through these, the attainment of the University's vision of transforming lives and communities by imparting knowledge of the faculty member as well the students through technology transfer.
Participants was assessed in terms of the knowledge and attitude being developed, skills they have learned throughout the training, the aspiration being introduced as a desired to more rigorous work, and finally assessed the economic status of each individuals, that after the training, an enormous changes in their lives happened.

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Introduction:

The Laguna State Polytechnic University's (LSPU) Extension and Community Services, envisions developing socially aware, sensitive and responsive members of Laguna community through active involvement in community extension, service learning, and outreach activities towards community development.

The extension services continue to discover and rediscover innovations to realize the relevant and responsive strategies, programs, services, and projects through participatory and transformational approach responsively transforming vision and mission of the extension services to the community.

As a result of Participatory Rural Appraisal (PRA), the need for technology transfer through Auto- CAD training was established for the community of Victoria and Pila Laguna, bringing up trainees such as professionals and non-professionals, as well as out - of school- youth.

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Auto-CAD is a computer-aided drafting software program used to create blueprints for buildings, bridges, and computer chips, among other things. Discover how Auto-CAD is used by drafters and other professionals.

Mc Lauree (2016), training in Auto-CAD software and computer-aided drafting can be found at technical and community colleges, including certificate or associate degree programs in Auto-CAD, drafting, or engineering technology. Most of these programs feature courses that focus on the hands-on use of the Auto-CAD software package. Some programs may even prepare students for Auto-CAD industry certification. Bachelor's degree programs in related fields, such as engineering, may also require students to take Auto-CAD courses.

Methodology:

Technology in drawing is already in the level wherein we do not need to draw using the conventional way instead we draw figures using the software and the result is far more reliable and consistent. Considering also the opportunity in landing a job, an Auto-CAD operator is in demand in the industry to date.

In this training, participants was trained by an expert in the field on how to draw using the Auto-CAD software starting from the basic command up to the professional level so that participants be able to complete the training and acquire the necessary skills in using the software and eventually they will land a job for them to support their family needs.

For each of the topic covered, the trainees/ participants are first exposed to the basic concept. Moving from the basic grasp of the module, the operating principles and its practical applications are then discussed and explored in great depth. Series of hands-on activities was conducted to facilitate the learning. Demonstration was also conducted and explanations was given to lead the participants into active engagement in the learning process. Participant then perform practical activities for each individual module.

Results and Discussion:

Feedbacks eventually used to assess and improve the programs. Hence, the university contributes to the development of the partner communities and at the same time the values and valuable learning through university's exposure to partner communities play a vital role in the significant development of the Laguna community.

The following variables and its corresponding indicators was used to measure the impact of Auto-CAD training to the participants.

Mean and Standard Deviation of Impact Assessment of Auto-Cad training in terms of Knowledge

Indicators	Mean	Standard Deviation	Remark
The course content was simple and understandable.	3.83	0.54	Strongly Agree
The illustrations, videos and interactions were used in the right level.	3.70	0.63	Strongly Agree
I could navigate the module very easily	3.22	0.43	Agree
The course content was appropriate and was presented in a structure manner	3.84	0.60	Strongly Agree
The duration of the course was just right.	3.90	0.65	Strongly Agree
The course has improved my knowledge on the computer hardware servicing	3.65	0.57	Strongly Agree
Composite Mean	3.69		Strongly Agree

Impact assessment of Auto-Cad training in terms of knowledge was 3.83 (SD=0.54) if the course content was simple and understandable, 3.70 (SD=0.63) if the illustration, videos and interactions were used in the right level, 3.22 (SD=0.43) for the easy navigation of module, 3.84 (SD=0.60) if the course content was appropriate and was presented in a structure manner, 3.90 (SD=0.65) if the duration of the course was just right and 3.65 (SD=0.57) if the course has improved their knowledge on the computer hardware servicing.

The overall mean rating of 3.69 manifest respondents' agreement that the impact assessment on Auto-Cad training in terms of knowledge was found out to be strongly agree. The responses appear to be homogeneous as shown by the small values of standard deviations.

Thomas, (2010) knowledge gain in different trainings can be define into two further matters and to be taken into consideration, namely the degree of certainty and the degree of precision. All knowledge is more or less uncertain and more or less vague. These are, in a sense, opposing characters: vague knowledge has more likelihood of truth than precise knowledge, but is less useful. One of the aims of training is to increase precision without diminishing certainty. But the knowledge must include some propositions that are rather vague and some that are only rather probable. It is important, however, to indicate vagueness and uncertainty where they are present, and therefore, knowledge in school as well as in some training is very important in an individual most especially in today's kind of living. It is a big help in order to be updated in the technology where our society is facing.

Mean and Standard Deviation on the Assessment of Auto-CAD training in terms of Attitude

Indicators	Mean	Standard Deviation	Remark
Extent to which the training program brought out the change in my techniques	4.20	0.70	Strongly Agree
Extent to which training program brought out the change in my behavior	4.50	0.79	Strongly Agree
Extent to which I am satisfied with what I am doing	3.87	0.59	Strongly Agree
Extent to which training program brought out motivation for continuous learning	3.58	0.47	Strongly Agree
Assisted me to develop skills in interacting with individuals with disabilities	3.91	0.69	Strongly Agree
Been worthwhile	3.90	0.66	Strongly Agree
Was tailored to meet my learning style (the way I learn best	3.92	0.72	Strongly Agree
Composite Mean	3.98	0.76	Strongly Agree

Impact assessment of Auto-Cad training in terms of attitude was 4.20 (SD=0.70) if the training program brought out the change in their techniques, 4.50 (SD=0.79) if the training program brought out the change in their behavior , 3.87 (SD=0.59) if they are satisfied with what they are doing , 3.58 (SD=0.47) if the training program brought out motivation for continuous learning , 3.91 (SD=0.69) if the training assisted them to develop skills in interacting with individuals with disabilities, 3.90 (SD=0.72) if they feel they become worthwhile and 3.92 (SD=0.72) if the training was tailored to meet the learning style of the participants.

Howard, (2011), the power of awareness keeps growing when the attitude is to look within to detect the patterns of resistance and fears and negativity in inner space. One cannot achieve a strong awareness overnight, it takes time attitude towards life decides the experience of it. The attitude of looking to learn is the most powerful attitude to carry since it allows for an inherently positive experience of life.

Mean and Standard Deviation on the Assessment of Auto-CAD training in terms of Skills

Indicators	Mean	Standard Deviation	Remark
I can understand 2D and 3D drawing	4.74	0.71	Strongly Agree
I can use the functions of AUTOCAD to create 2D and 3D.	4.51	0.64	Strongly Agree
I can draw geometric shapes with accurate sizes.	3.73	0.57	Strongly Agree
I can draw and construct floor plan	3.58	0.58	Strongly Agree
I can draw isometric drawing/figure	3.82	0.69	Strongly Agree
I can draw 3D objects with curves and colors.	3.80	0.66	Strongly Agree
I can print the actual output of my drawing using AUTOCAD	3.25	0.44	Agree
Composite Mean	3.92		Strongly Agree

Impact assessment of Auto-Cad training in terms of skills was 4.74 (SD=0.71) in understanding 2D and 3D drawing, 4.51 (SD=0.64) for the using of the functions of Auto-Cad to create 2D and 3D. , 3.73 (SD=0.57), if the trainees can draw geometric shapes with accurate sizes, 3.58 (SD=0.58), if they can draw and construct floor plan, 3.82 (SD=0.69) if they can draw isometric drawing/figure, 3.80 (SD=0.66) if they can draw 3D objects with curves and colors and 3.25 (SD=0.44), if they can print the actual output of my drawing using Auto-Cad.

Samuel, (2015) speaking, writing and listening are so important in the role of CAD learning, and one can certainly learn how to achieve good communication in the workplace through the CAD courses. Without strong listening skills, CAD technicians would not be able to gain a good understanding of changes that need to be made to a project and problem solving becomes much more difficult.

Lance, (2013), a good AutoCAD learner, notice that the software skills will help out with a lot of your drawing work. While most of the work will be done digitally, hand-drawing is still considered a valuable skill in the architectural and engineering industry. To many employers, the ability to draw represents your creative process and demonstrates raw talent.

Mean and Standard Deviation on the Assessment of Auto-Cad training in terms of Aspiration

Indicators	Mean	Standard Deviation	Remark
Extent to which training meet may expectations.	4.07	0.71	Strongly Agree
Extent to which training helps me in my future career	3.88	0.69	Strongly Agree
Opportunity provided to implement the skills learned.	3.67	0.57	Strongly Agree
Relevance of the training to the current pursued job	4.56	0.77	Strongly Agree
Training helped in getting awareness of the latest trends in software & hardware field	3.55	0.64	Strongly Agree
Opportunity of sharing information	3.50	0.51	Strongly Agree
Help me improve the quality of life of the people I support.	3.74	0.61	Strongly Agree
Inspired me to begin or continue my career as a direct support professionals	3.82	0.65	Strongly Agree
Prepared me to complete my specific job responsibilities	3.08	0.48	Strongly Agree
Composite Mean	3.76		Strongly Agree

Impact assessment of Auto-Cad training in terms of aspiration was 3.88 (SD=0.69), for which the training helps in the future career, 3.67 (SD=0.57) for the opportunity provided to implement the skills learned, 4.56 (SD=0.77), if the training is relevant to the current job, 3.55 (SD=0.64), if the training helped in getting awareness of the latest trends in software & hardware field , 3.50 (SD=0.51) if there was an opportunity of sharing information, 3.74 (SD=0.61) if the training helped improve the quality of life of the people they are supporting, 3.82 (SD=0.65) if the training inspired to begin or continue a career as a direct support professionals and 3.08 (SD=0.48), if the training prepare to a complete specific job responsibilities.

The overall mean rating of 3.76 manifest respondents' agreement that the impact assessment on Auto-Cad training in terms of aspiration was found out to be strongly agree. The responses appear to be homogeneous as shown by the small values of standard deviations.

Mean and Standard Deviation on the Assessment of Auto-Cad training in terms of Economic Status

Indicators	Mean	Standard Deviation	Remark
Meeting daily household challenges	4.05	0.66	Strongly Agree
Increased in wages & probability of remaining in employment	3.87	0.61	Strongly Agree
Access healthcare	3.32	0.45	Agree
Pay for education of my children	3.30	0.43	Agree

Acquire more assets	3.55	0.52	Strongly Agree
Generating empowerment for women.	4.34	0.69	Strongly Agree
Participating meaningfully in community activities	3.09	0.39	Agree
Providing access with entrepreneurial training	3.44	0.48	Agree
Contribute to develop client's capacities in managing business	3.41	0.50	Agree
Opportunity to work abroad	3.67	0.55	Strongly Agree
Composite Mean	3.60		Strongly Agree

Impact assessment of Auto-Cad training in terms of economic status was 4.05 (SD=0.66), for which the training helps in meeting their daily household challenges, 3.87 (SD=0.61) for which, because of training their wages was increased & the probability of remaining in employment, 3.32 (SD=0.45), for which they can now access healthcare for their family, 3.30 (SD=0.43), for which they can now pay for the education of their children, 4.34 (SD=0.69) for which they can now generate empowerment for women , 3.09 (SD=0.39) where they can participate meaningfully in community activities , 3.44 (SD=0.48) for the provision of access with entrepreneurial training, 3.41 (SD=0.50) for which contribute to develop client's capacities in managing business, and 3.67 (SD=0.55) for which the training can help the training to work abroad.

Shamim (2011) in his study compared learners' socio-economic status of the group of trainees in electronics class where scores in the most recent public examination. He found that learners in the higher income bracket consistently outperformed learners in the lower income bracket. He suggested that the positive correlation of high family income with students' higher levels of proficiency may be attributed to their earlier education in private medium schools compared to students in the lower income bracket.

Aikens & Barbarin (2016) recognized in the process of their investigation that children from low socio-economic environments acquire language skills more slowly, exhibit delayed letter recognition and phonological awareness, and are at risk for reading difficulties.

Auto-CAD training was given by the College of Engineering of Laguna State Polytechnic University does not confined for those students who are professional but given the opportunity for the out-of-school youth, as well as the non-professionals who wants to acquire skills and knowledge in Auto-Cad in order to help uplift the economic status of the participants in order to transform lives and communities into a more productive individual.

Conclusion:

As a higher education institution, the university brings to bear in its extension/ outreach/ service learning programs its expertise in instruction and research. These programs, however, are not a one- way traffic. They are implemented as a result of researches conducted and concepts taught in the classroom. As the university extends its expertise with the partner communities, feedbacks are generated from the stakeholders.

Auto-CAD training being offered by the colleges and universities to its neighboring communities could be a continuous program that can help the individual to embrace the new trends in technology without enrolling to the formal school. This endeavor given by the educators in the extension service should be realized by the Local Government Unit, for which they will be the middleman in every training provision by the school community.

Recommendation

As the over-all coordinating body of the various community extension activities that are initiated by the different sectors of the Laguna community, the community and extension services of LSPU should:

1. Participate in constructive and relevant social and technical activities in the promotion of skills training that will the community to uplift their lives.
2. .Creation of such extension services to the community should be promoted in active cooperation by the Local Government Unit for an easy access of the trainees.
3. Encourage volunteerism among the sectors of the Laguna community for the noble and worthwhile extension activities thereby cultivating the same spirit in the client partner communities.

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