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Articles, reviews, and reports appearing in the *Journal of International Vocational Education and Training* do not necessarily reflect the policy or position of the International Vocational Education and Training Association, the *Journal’s* editors or staff, and no endorsement by the Association or the *Journal’s* editors should be inferred.

IN THIS ISSUE

THE EDITORS

This issue of the *International Journal of Vocational Education and Training* features four research articles. One article deals with teaching and testing, and another with supervision of career and technical education teachers. Two studies about attitudes of students follow.

In “Analysis of Measuring Tools in Teaching and Testing Home Economics in Mbabane High Schools,” Mantyi–Ncube and Hlophe analyzed lesson plans and mid–year/end–of–year examination questions to determine the match between cognition levels of home economic teachers and students. They recommend that “[Home Economics] teachers be concerned about fairly distributing instructional objectives and examination questions in all cognition levels for students to be competent in higher order cognitive skills.”

Next, Potutschig, Clark, and Threeton propose a supervision model for improving career and technical instructor performance and career and technical student achievement. First, the authors provide a historical review of U.S. legislation pertaining to career and technical education. They recommend frequent short instructional program visits by supervisors, which often are known as administrative “walk-throughs” to improve teacher performance and student achievement.

In “Attitudes of Vocational Education Students at Al–Huson University College Towards Their Major,” Al-Momani and Alloh measured the students’ attitudes toward the study of vocational education. Among their recommendations is the assertion that “To achieve the formation of best positive attitudes among the students, teachers of the specialization should create appropriate educational and learning opportunities through the preparation and implementation of appropriate activities and scientific programs for the curricula and extracurricular.”

The last article published in this issue of the *Journal*, “Motivation and Attitudes of Vocational Education Female Students Toward Learning English,” by Ababneh was conducted at Al-Huson University College, Al-Balqa’ Applied University, Jordan. As Ababneh notes, “paper addresses itself to a very important factor in language learning that is motivation.”

This issue of the *Journal* ends with our suggestions for potential authors, “Manuscript Preparation and Publication Guidelines for the *International Journal of Vocational Education and Training*.” Following these guidelines requires your attention to detail. Authors must produce a manuscript and ancillary materials (e.g., tables, figures, and references) that meet certain technical guidelines because the *Journal*, in contrast with a more commercial operation, is produced entirely by volunteers.

Your reward for following the *Journal’s* manuscript preparation and submission guidelines is quick movement of your manuscript submission through the *Journal’s* editorial and publication processes. We have worked long and hard with many manuscripts – one time, with over 50 hours invested in the editing of one manuscript alone. The process moves faster if your manuscript is ready for review and, if warranted, publication. You can make

the process work better and faster if you prepare your manuscript ethically and in conformance with the *Journal's* style, length, and content requirements. The *Journal's* guidelines are revised frequently and are available persistently at <http://goo.gl/G3eb9>. Always follow the most recent guidelines when you submit your manuscript to the *Journal*.

And, last, if you already are not a member of the International Association of Vocational Education and Training, consider joining. See the last inside page of the *Journal* for more information.

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Featured Articles

ANALYSIS OF MEASURING TOOLS IN TEACHING AND TESTING HOME ECONOMICS IN MBABANE HIGH SCHOOLS

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ABSTRACT

An analysis of 2006/2007 lesson plans and mid-year/end-of-year examination questions was employed providing data for identification of cognition levels Home Economics (HE) teachers taught and tested their students. Based on the Bloom's taxonomy, this study analyzed overall concentration of examination questions, description of the distribution of instructional objectives/examination questions, and relationship between planning and testing according to various cognitive levels. Knowledge cognition was mostly used while analysis was least used in examination questions. Significant differences between planning and testing at knowledge, synthesis, and evaluation levels were found. Recommendations included that HE teachers be concerned about fairly distributing instructional objectives and examination questions in all cognition levels for students to be competent in higher order cognitive skills.

The success of any educational system depends largely on teachers. School improvement efforts and/or educational reform will most likely not happen until effective teachers are regarded as the most important entity (Gordon & Yocke, 1999). Effective teachers must be knowledgeable in pedagogy and subject matter. Teachers should shift from low-level basic skills and isolated facts to higher order thinking skills. Students can learn how to think at the higher levels of cognition by being given instruction and practice, and the goal of every teacher should be to develop students' understanding to become independent and thoughtful problem-solvers (Anderson, Hiebert, Scott & Wilkerson, 1985; Bransford, Brown & Cocking, 2000).

According to Ajiboye (2009), learners need education that will direct them by giving them the opportunity to make enquiries, investigate, discover, discuss, experiment and acquire experiences in order to make decisions on social issues and problems, and find solutions to them. Furthermore, the taxonomy of learning behaviors can be thought of as the goals of the training process, which are, after training, the learner should have acquired new skills, knowledge, and attitudes. In support, Zwane (1993, p. 56) stated that "a curriculum serves several objectives which may include acquisition of skills, knowledge of subject matter, development of cognitive processes and attitudes. Specific content of curriculum units should place more emphasis on problem-solving so that the act of learning becomes a transaction between the content and the learner."

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The cognitive domain involves knowledge and the development of intellectual skills. This includes the recall or recognition of specific facts, procedural patterns, and concepts that serve in the development of intellectual abilities and skills. Bloom, Englehart, Furst, Hill, and Krathwohl (1956) gave the levels of cognition beyond the knowledge level as comprehension, application, analysis, synthesis, and evaluation. Teaching at these levels has been found to be important in the development of thinking abilities.

Referring to Bloom's Taxonomy of learning in the cognitive domain, Dlamini and Dlamini (2005, p. 37; 44) stated that "students must be able to apply, analyze, synthesize, and evaluate—think at the higher levels of cognition—and not just think at lower levels of rote memory and comprehension," and further indicated that "agriculture teachers should test less at the remembering level and more at the upper levels of cognition, only after higher order thinking has been modeled." Teachers should also assess cognition levels of instruction being delivered to their students, and thereby develop lesson plans, which appropriately challenge students at all levels of cognition.

The increasing international economic competition coupled with technological improvements necessitates change in the "majority of the current and future workforce from one which has limited thinking capacity, flexibility, and independence; to one which is skilled in thinking, reasoning, problem-solving, and communication and continuous learning. Among the many skills needed to function efficiently in a modern economy are higher order cognitive skills" (Dlamini & Newcomb, 1998, p. 218).

COGNITION LEVELS IN TEACHING AND LEARNING

Bloom's Taxonomy of educational objectives is a convenient way to classify cognitive levels. The taxonomy includes degree to which teachers want their students to understand and use concepts; demonstrate particular skills; and have their values, attitudes, and interests affected. It is critical that teachers determine their expected levels of expertise students should achieve, because that will determine which classroom assessment techniques are most appropriate for the unit taught.

Yousefkhani (2008) reported that instructional objectives serve as descriptions of the performance to be demonstrated by a learner after instruction and, as such, are important to both learners and instructors. The instructional objectives help learners plan their studying and in preparation for examinations, and also guide instructors in planning lessons for instruction and in devising tests and class assignments. Therefore, clearly defined objectives provide a means of selecting the optimum instructional strategies to facilitate the learner's achievement (Yousefkhani, 2008). However, the pedagogic techniques used in cognitive development are not always appropriate to affective development (Calhoun & Finch, 1982).

For meaningful, child-centered and skills-based teaching and learning to occur in education, a balanced range of methods is essential, and whatever techniques teachers select should emphasize problem-solving methods and active student participation. Further supported by Edwards (2004), active student participation as historically used by career and technical educators is "learning by doing," "heads and hands," "theory and practice," and "cooperative education." Although teachers may not review every objective, classroom activity, or test question and match it with Bloom's taxonomy of educational objectives, teachers are certainly mindful that teaching and learning should extend beyond the knowledge level, encouraging students

to think and solve problems in real-world applications, “the higher level of problem-solving is the fundamental basis for higher thinking” (Bloom, 2004; Dlamini & Dlamini (1993).

ASSESSMENT AND INSTRUCTIONAL PRACTICES

Educators are more proficient in measuring cognitive behavior because educational institutions place higher priority on training persons to work with words, concepts, and symbols that are essential to success in the society. On the other hand, in the psychomotor domain, learning objectives emphasize motor skills, manipulation of materials and objects, or neuromuscular coordination. The psychomotor taxonomy or behaviors provide a framework for fine arts and vocational-technical education programs (Calhoun & Finch, 1982). Home Economics being a skill-based practical subject lends itself to the psychomotor domain wherein behaviors are observable and mostly objectively measured. Vocational-technical education is mainly about transferring technical skills to the learners and effectively making them competent in the various skills for craftsmanship.

Quality education requires continuous interaction among instruction, curriculum, and assessment with assessment playing an integral role, a critical component in the educational process. Assessments are needed to discover what students are learning, which may be used as the basis for changes in instruction and curricula. Tests therefore play a prominent role in the education reform as an effective means to quickly change instructional practices that force educators to align their instruction with national curriculum frameworks (Davis, 1999). According to Worthen and Sanders (1987), procedures for constructing test items that result in a good test require that teachers when planning tests must think carefully about the learning outcomes they wish to measure, the type of items best suited to those outcomes, the range of difficulty for the items, the format and layout of the examination and their scoring procedures, and also analyze the test results in some way. For success in assessing student performance, particularly the degree of mastery of some specific skills, a teacher must fully understand the purpose of the test and how it functions in the overall assessment program (Thorndike, Cunningham, Thorndike & Hagen, 1991).

Testing should provide students with practical skills to interpret, record, and construct, and enable them to explain particular concepts, thus illustrating and showing relationships (Ajiboye, 2009). According to Davis (1999) tests are powerful educational tools that serve at least four functions; that is, tests help teachers evaluate students and assess whether they are learning what they are expecting them to learn, serve to motivate and help students structure their academic efforts, help teachers understand how successfully they are presenting material, and reinforce learning by providing students with indicators of what topics or skills they have not yet mastered and on which they should concentrate.

PURPOSE AND OBJECTIVES OF THE STUDY

According to Dlamini and Dlamini (2005), most high school teachers have a tendency of teaching and testing their students at lower levels of cognition, the knowledge and comprehension levels. At these levels, students are expected to recall information, and testing at these levels often requires students to write short word answers. On the other end, some teachers teach their students

at lower levels of cognition and then test them at higher levels of cognition, hoping that students will be able to solve problems at higher levels of cognition.

A study by Sayer and Studd (2006) suggested a model of constructive alignment in which clear curriculum objectives married with suitable teaching and assessment methods foster a “deep” approach to learning. The purpose of this study was to identify the levels of cognition at which HE teachers, in selected high schools in Mbabane, Swaziland, teach and test their students. The specific research objectives of the study were to:

1. Analyze the overall concentration of examination questions, set by high school HE teachers for the years 2006 and 2007, according to Bloom’s cognitive levels.
2. Describe the distribution of the examination questions according to the various cognitive levels.
3. Describe the distribution of instructional objectives according to the various cognitive levels.
4. Describe the relationship between the planning and testing levels in the various levels of cognition.

MATERIALS AND METHODS

SUBJECT SELECTION

The target population was HE teachers who were teaching Home Economics to Forms Four and Five in Food and Nutrition, and Fashion and Fabrics at high school level, in Mbabane. From a total of ten schools, simple random sampling method was used to select the six schools which were used for the study. The schools were coded as school A, B, C, D, E, and F.

INSTRUMENT DEVELOPMENT

The instrument for data collection was a form developed by the researchers. This form consisted of seven columns where the question was recorded in the first column and its objectives were coded into the six columns according to the level of cognition adapted from Bloom (2007). The researchers classified each of the questions into the appropriate level of cognition. Lecturers in the Departments of Home Economics and Agriculture at the University of Swaziland validated the designed form. Comments made by the lecturers were considered and used to modify the instrument. Intra-rater reliability was calculated using the Pearson *r* coefficient, and the reliability was 0.74.

DATA COLLECTION AND ANALYSIS

The descriptive study employed content analysis procedures. For each of the selected schools, all examination questions and instructional objectives developed by HE teachers for the years 2006/2007 were studied; a total of 1076 questions and 213 instructional objectives (Table I) were examined. The instructional objectives and examination question items were each classified and categorized into the various and appropriate levels of cognition based on the action words/verbs used (e.g., explain, design, analyze, etc.) following the criteria developed by Bloom et al. (1956). Thereafter, the overall concentration of examination questions and instructional objectives were determined based on the level of cognition in which each objective and question was categorized. The *Statistical Package for Social Science* (SPSS) was used to analyze the data.

Research Objectives One, Two, and Three were analyzed using frequencies and percentages. Research Objective Four was analyzed using independent sample *t*-test.

RESULTS AND DISCUSSION

OBJECTIVE ONE: *The Overall Concentration of Examination Questions According to the Various Cognitive Levels as Set by High School Home Economics Teachers*

Results in Table 1 indicated that in all the six schools (A, B, C, D, E, F) studied that most of the questions were at the knowledge (50.2%) and comprehension (30.4%) levels and the least (2.1%) were at the analysis level. Similarly, the majority of instructional objectives were also at the knowledge (35.2%) and comprehension (34.7%) levels. The comparison revealed that teachers taught and tested their students at low levels of cognition; the students were taught to recall learned information. Bloom's taxonomy of educational objectives consists of six levels of cognition: knowledge, comprehension, application, analysis, synthesis, and evaluation (Table I).

Table 1. *Overall Concentration of Examination Questions and Instructional Objectives in the Cognitive Domains*

Domain	Exam Questions		Instructional Objectives	
	<i>n</i>	%	<i>n</i>	%
Knowledge	540	50.2	75	35.2
Comprehension	327	30.4	74	34.7
Application	29	2.7	21	9.9
Analysis	23	2.1	9	4.2
Synthesis	40	3.7	33	15.5
Evaluation	117	10.9	1	0.5
Total	1076	100.00	213	100.0

From Ajiboye's (2009) study, teachers should be able to choose the appropriate cognitive level for classroom objectives and a quality assessment be designed to measure how well those objectives have been met. The use of effective and varied assessments increases potential and cognitive skills in pupils. Teachers should write questions that test skills other than recall. Research shows that most tests administered by teachers rely too heavily on students' recall of information (Davis, 1999).

Multiple-choice or short answer questions are usually written in a manner appropriate for assessing students' mastery of details and specific knowledge. Essay questions are usually used to assess comprehension, the ability to integrate and synthesize, and the ability to apply information to new situations. Bloom et al. (1956) argue that it is important for tests to measure higher-learning as well. From their study, Dlamini and Dlamini (2005, p. 38) indicated that Bloom's taxonomy of educational objectives consists of six levels of cognition, providing a "structure beginning with a continuum going from the simple to the complex levels of cognition."

OBJECTIVE TWO: *The Distribution of the Examination Questions According to the Various Cognitive Levels.***KNOWLEDGE LEVEL**

The findings of the study indicated that teachers in all of the schools studied tested mostly at the knowledge level; they all tested between 44.4 percent and 54.2 percent at this level, as shown in Table 2.

Table 2. *Distribution of Examination Questions in the Cognitive Levels Between Schools*

School	Knowledge		Analysis		Synthesis		Evaluation	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
A	34	50.0	2	3.0	5	7.4	7	10.3
B	140	44.4	15	4.8	27	8.6	36	11.4
C	62	51.7	0	0.0	2	1.7	16	13.3
D	93	54.1	2	1.2	5	2.9	15	8.7
E	135	54.2	1	0.4	1	0.4	26	10.4
F	76	50.0	3	2.0	0	0.0	17	11.2

ANALYSIS LEVEL

Table 2 shows that findings indicated that testing at the analysis level was rarely done. All the schools studied had a very low percentage of questions tested at this level. School C had no questions set at this level.

SYNTHESIS LEVEL

For the synthesis domain, the findings showed that the synthesis level was also less used in all the schools. Table 2 indicates no questions (0%) at this level for School F. School B shows the highest use of questions at the synthesis level, 8.6 percent.

EVALUATION LEVEL

Results on Table 2 indicated that teachers in all the schools studied tested their students at low percentages for the evaluation level. School C recorded the highest use of evaluation level questions (13.3%) and School D the lowest (8.7%). Although the evaluation level ranked third in examination questions among those levels of cognition mostly used by the HE teachers in the six schools studied, the percentage level was low (10.87%), as shown on Table 1.

Findings of the study revealed that planning at the evaluation (0.5%) level was not related to testing (10.87%) and also evaluation was the least planned for of all six instructional objectives. There is an implied hierarchy to Bloom's categories, with knowledge representing the lowest level of cognition and the evaluation category representing the highest and most complex level. From these findings, a conclusion can be drawn that all schools studied had very little emphasis in testing their students to solve problems at the evaluation level.

COMPREHENSION LEVEL

Results of the study indicated that HE teachers in all the schools studied do test at the comprehension level. Table 3 indicated testing at this level was fairly distributed in all the schools studied. The comprehension level ranged from 26.4 percent to 35.5 percent.

APPLICATION LEVEL

The findings of the study indicated that the level of testing at the application level was low in all the schools studied. School B recorded 4.4 percent of their questions testing students to apply what they learned. School E recorded 0.8 percent, the lowest in all the six schools, and yet its instructional objectives ranked third at 8.5 percent. Planning at the application level (47.6%) for School F was not related to testing (1.3%), nor was it for School A with 20 percent for instructional objectives and 3.0 percent for testing. From Ajiboye's (2009) study, instructional testing techniques have placed more emphasis on the six levels of thinking and high quality tests should capture most, if not all, thinking skill from the content taught. It should also be noted that pupils learn best when they are asked questions that would require them to apply the skill of thinking and reasoning as suggested by Bloom.

Table 3. Overall Percent Distribution of Examination Questions and Instructional Objectives According to the Various Cognitive Levels between Schools

School	Knowledge %	Comprehension %	Application %	Analysis %	Synthesis %	Evaluation %
<i>Examination Questions</i>						
A	50.0	26.5	3.0	3.0	7.4	10.3
B	44.4	26.4	4.4	4.8	8.6	11.4
C	51.7	30.0	3.3	0.0	1.7	13.3
D	54.1	30.2	2.9	1.2	2.9	8.7
E	54.2	33.7	0.8	0.4	0.4	10.4
F	50.0	35.5	1.3	2.0	0.0	11.2
<i>Instructional Objectives</i>						
A	30.0	0.0	20.0	0.0	50.0	0.0
B	63.5	17.3	0.0	1.9	17.3	0.0
C	44.1	44.1	2.9	5.9	2.9	0.0
D	34.2	42.1	2.6	7.9	13.2	2.6
E	64.0	48.9	8.5	6.4	23.4	0.0
F	38.1	52.4	47.6	0.0	9.5	0.0

Teachers can identify the level of chosen classroom objectives and create assessments to match those levels. One can write items for any given level; it is fairly simple to tap lower levels of Bloom's taxonomy and more difficult, but not impossible, to measure at higher levels. Thus, according to Bloom's (2004) hierarchical classification system, educators have been challenged to "think about the objectives they write, the questions they ask, and the test items they construct." Studies show that students study in ways that reflect how they think they will be tested, they memorize details for an exam on facts, and they will work towards understanding and applying information for a test that requires problem-solving or integrating knowledge (Davis, 1999).

OBJECTIVE THREE: *The Distribution of Instructional Objectives According to the Various Cognitive Levels*

Table 1 results indicated that in the six schools studied most instructional objectives were made at the knowledge (35.2%) and comprehension (34.7%) levels. Evaluation, which is the highest cognitive level, had the lowest recorded instructional objectives (0.5%) as shown in Table 1. This shows that teachers plan for teaching their students at low levels of cognition; the students are trained to recall learned information.

A closer look at each of the instructional objectives according to the various cognitive levels for each of the six schools in Tables 3 indicated that teachers in schools B and E planned most of their instructional objectives at the knowledge level. This implied that their students were mostly taught at lower levels of cognition, which only requires them to comprehend the learned information instead of applying it to solve problems in real life situations. Results indicated that five out of the six schools studied had HE teachers who taught at the comprehension level. School B recorded the least proportion (17.3%) of the instructional objectives. At the application level, School B recorded 0.0% instructional objectives. Those schools with highest levels planned at and taught at the comprehension cognitive level, Schools C and D, reflected lows of 2.6% and 2.9% for the application level. The highest planning at the application level was recorded at 47.6% for School F. Findings of the study showed that HE teachers in all the schools studied taught their lessons less at the analysis level, with both Schools A and F recording 0.0% for the instructional objective. For the synthesis level, School A recorded the highest (50%) and School C the lowest (2.9%) and results showed that teachers from all schools studied did plan for their teaching at the synthesis level of cognition. Lastly, a result of 0.0% indicated that HE teachers in the five schools did not plan their lessons at the evaluation level, with the exception of School D with a record of 2.6% (see Table 3).

From Dlamini and Dlamini's (2005, p. 41) study, instructional objectives provide a "blueprint" of what is considered important in a given course, and thus creating a common understanding between teachers and students by giving information that will be provided by the teacher as well as what is expected of the student. Other authors have confirmed this view by indicating that "instructional objectives provide a cornerstone for the practice and science of instruction and a means for describing and measuring learning outcomes in a more systematic and detailed fashion" (Bunderson, Gibbons, Olsen & Kearsley, 1981). And, "for students to be able to solve problems at the various levels of cognition, they have to have been taught in the various levels of cognition (knowledge, comprehension, application analysis, synthesis, and evaluation) so that they could solve problems of similar nature, in real life context by applying learned information" (Dlamini & Dlamini, 1993, p.29).

OBJECTIVE FOUR: *The Relationship Between Planning and Testing Levels*

The relationship between planning and testing levels was calculated. The analysis used independent sample t-test, which is appropriate for comparing different means to describe the strength of the association. Information in Table 4 indicated that Home Economics teachers from the schools studied tested more at knowledge and evaluation level than they planned for within their instructional objectives for their lessons at those levels, and they planned more at the synthesis level, while they tested less at that level. The results also indicated that teachers did not plan at the evaluation level as shown on Table

3, but they did test their students at that level of cognition (see Table 3). Only School D had 2.6% of the instructional objectives planned at the evaluation level, but ranking last in the examination questions asked as shown in Table 3.

In conclusion, results of this study show that there is a significant difference between planning and testing at the knowledge, synthesis, and evaluation levels. Planning at knowledge, synthesis, and evaluation levels was not related to testing, as shown in Table 4. Ideally, teachers should match their tests to the content they are teaching, and thereby measuring students' achievement of educational goals for the course. Test items should be based on content and skills most important for the students to learn and also reflect the educational objectives. For each test item, teachers should be able to check off the objective and the content it covers. Also, a test is to be balanced, that is, to cover of the main ideas and important concepts in proportion to the emphasis they received in class.

Table 4. *Objectives at the Cognitive Levels in Planning for Teaching and Testing Utilized by Home Economics Teachers*

Level of Cognition	Planning Level		Testing Level		t-value	p-value
	M (%)	SD	M (%)	SD		
Knowledge	34.82	32.40	49.45	13.09	2.62*	0.01
Comprehension	34.58	32.71	29.70	15.53	-0.85	0.40
Application	10.32	26.16	4.35	10.42	-1.32	0.19
Analysis	3.38	7.86	2.94	6.76	-0.27	0.78
Synthesis	16.52	32.55	3.65	6.10	-2.40*	0.02
Evaluation	0.38	2.32	9.91	7.38	8.36**	0.00

*Statistically significant at the 5% level.

** Statistically significant at the 1% level.

CONCLUSION / RECOMMENDATIONS / IMPLICATIONS

From the findings of the study it can be concluded that HE teachers teach and test their students mostly at the knowledge or comprehension levels. This means that students are mostly tested their ability to recall learned information and are trained to think at lower levels of rote memory and comprehension. One can conclude that students from the schools studied are not challenged at higher levels of cognition, which means that they can not solve problems in real life using the skills and information learnt at schools. The HE teachers tested their students mostly at the lowest levels of cognitive domain were in agreement with research findings (Ajiboye, 2009; Cano, 1990; Dlamini & Dlamini, 1993); this implied that students could not be able to solve problems at a higher level because they were not taught at that level. Teachers did not challenge students to think or solve problems at the higher cognitive domain during instruction; this implied that their students lacked a good foundation of competence in the various levels of cognitive domain.

Considering the findings, HE teachers should be concerned about a fair distribution of their examination questions in all the levels of cognition. This calls for the reduction of questioning requiring memorizing and helping and encouraging teachers to test at higher levels of cognition. Further suggestions are that teachers should use assignments to establish participation by students as researchers have noted that assignments are always an effective way to

encourage students to have higher cognitive level thinking; an suggestion supported by Ajiboye (2009) who stated that “a learner who is able to perform at the higher levels of taxonomy, demonstrates a more complex level of cognitive thinking.”

With regards to the distribution of instructional objectives on the planning of lessons, the findings of the study indicated that HE teachers of the six schools studied planned most of their lessons at the knowledge, comprehension, and synthesis levels of the cognitive domain. This indicated that there was no equal distribution of the instructional objectives in the various levels of cognitive domain. According to Dlamini and Dlamini (2005), teachers should assess the level of cognition of instruction being delivered to their students and make “conscientious changes in their current teaching methodology to reach the cognitive levels to which they aspire for their instruction” (p. 45) by continuously planning at higher levels of teaching and teaching at higher levels of cognition. Progress towards the achievement of instructional goals must be periodically evaluated if effective teaching and learning are to be accomplished (Payne, 1968). Worthen and Sanders (1987) stated that the distinguishing feature of an objectives-oriented evaluation approach is that the purposes of some educational activity are specified and then evaluation focuses on the extent to which those purposes are achieved.

Relationship between planning and testing did not exist at the knowledge, synthesis, and evaluation levels, which means that teachers planned and tested at the comprehension, application, and analysis levels of the cognitive domain. There was a significant difference between planning and testing at the knowledge, synthesis, and evaluation levels (see Table 4). Considering the findings, HE teachers should be concerned about a fair distribution of their instructional objectives and examination questions in all the levels of cognition. If effective teaching and learning were to be accomplished, it is well recognized that educational objectives and learning experiences are intimately related; it is less apparent to many that objectives, learning experiences and measuring tools are also intimately related. It is the interaction of the three elements in a well planned program of education which best promotes the desired changes in the learner behavior (Payne, 1968; Worthen & Sanders, 1987).

Based on the conclusions of this study and the literature on teaching and learning on higher cognitive levels, implications are that corrective measures or action should be taken to develop lesson plans which appropriately challenge students at all levels of cognition if these students are to be of better competence in all the levels. Also, in-service workshops should be provided for HE teachers, wherein awareness and importance of teaching and testing at higher cognitive levels of application, analysis, synthesis, and evaluation, which truly show what students know and understand is prioritized. Furthermore, pre-service teachers should be provided with a unit of instruction in recognizing and writing instructional objectives at the various levels of cognition and in setting tests and examinations that are fairly distributed in all the levels of cognition.

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A PROPOSED SUPERVISION MODEL FOR IMPROVING CAREER AND TECHNICAL INSTRUCTOR PERFORMANCE AND CAREER AND TECHNICAL STUDENT ACHIEVEMENT

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ABSTRACT

Improving the instructional abilities of career and technical education (CTE) instructors has been a priority of CTE administrators for many years. Multiple approaches have been pursued towards improving instruction including professional development, innovative instructional techniques, peer mentoring, and refined methods of teacher coaching and supervision. Traditionally, administrators would visit the CTE program periodically and perform an instructional observation inclusive of a pre-conference, observation, post-conference, and final report. The administrative “walk-through” can provide consistent and pertinent data on teacher performance. This paper researches the use of administrative “walk-throughs” as an effective tool to enhance teacher supervision and improve CTE instruction.

The purpose of this study was to research the best practices associated with performing brief and periodic instructional supervisory walk-through observations by administrators in secondary schools to ensure high teacher performance which can lead to high student achievement on state and federal assessments. These findings will be utilized to propose a research-based walk-through model for career and technical education that emphasizes expected teacher behaviors that are closely associated with higher student achievement.

The reviewed research identifies several areas of interest including the impact of student mandates, the accountability requirements of CTE, characteristics of quality leadership, and current teaching and walk through observation strategies. Additionally, current types of walk-through strategies being used in schools throughout the United States are identified and described. The primary role in creating effective schools (and career and technology centers) is to impact student achievement by influencing the instructional practices of teachers. (Goodwin et al., 2003; O'Donnell & White, 2005; Printy, 2010).

HISTORY OF CAREER AND TECHNICAL EDUCATION IN THE UNITED STATES

To frame the need for instructional accountability and instructional improvement, a brief account of Career and Technical Education history in the United States is offered to provide a contextual understanding regarding the obligation career and technical centers are mandated to follow federal requirements.

SMITH-HUGHES ACT OF 1917 (P.L. 64-347) / GEORGE DEEN ACT OF 1936

The Smith-Hughes Act of 1917 was the first federal law that acknowledged vocational education. The Smith-Hughes Act of 1917 created federal and state boards, which worked together in conjunction with each other to document

and promote the initiation of vocational education across the country primarily in agriculture, home economics, and trade and industry. In addition, the Smith-Hughes Act of 1917 provided federal dollars to help support vocational programs and training for vocational teachers (Hayward & Benson, 1993). This law was intended to provide a comprehensive approach to education where students could learn academics and trade skills in the same education building or system (Hayward & Benson, 1993).

Subsequent federal legislation known as the George-Deen Act of 1936 expanded federal support to include distributive education, which contained components of job placement and cooperative education (Wraga, 1993).

FEDERAL VOCATIONAL EDUCATION ACT OF 1963 (P.L. 88-210)

With the passage of the Vocational Education Act of 1963 new controls were introduced such as “set-asides,” which required schools to spend a percentage of the federal dollars in certain areas (Hayward & Benson, 1993) as opposed to having complete autonomy in the expenditure of funds. At this point schools with vocational education programs began to change how they spent their money because of a desire to qualify for the maximum amount of federal funds available.

FEDERAL VOCATIONAL EDUCATION AMENDMENTS OF 1968 (P.L. 90-576)

The Vocational Amendment of 1968 was designed to ensure all citizens would have access to appropriate technical and vocational education training. In addition, the amendment offered solutions to the nation’s social and economic problems of poverty and lack of educational opportunities. This amendment provided millions of dollars to fund the education of high school and post-high school individuals in different vocational education areas. Money was available for the training of people with academic, socioeconomic, and other barriers to success. As a result of the passage of these amendments, federal funding was made available to states to help cover the construction costs of area vocational schools (Scott & Sarkees-Wircenski, 2008).

FEDERAL EDUCATION AMENDMENTS OF 1976 (P.L. 94-482)

The Education Amendments of 1976 brought about even more changes and revisions to the 1963 act. The first purpose of the 1976 amendment was to extend, improve, and maintain existing programs of vocational education. Next, the legislation provided funding to schools and supported the development of new programs. In addition to revising and adding new programs the federal government provided resources to help schools overcome gender discrimination and gender stereotyping. Lastly, money was now available to youth who needed part-time employment so they could continue vocational training on a full-time basis (Scott & Sarkees-Wircenski, 2008).

CARL D. PERKINS FEDERAL VOCATIONAL EDUCATION ACT OF 1984 (P.L. 98-524)

The goals of the Carl D. Perkins Vocational Education Act of 1984 was to “expand, improve, modernize, and develop quality vocational education programs in order to meet the needs of the nation’s existing and future workforce for marketable skills and to improve productivity and promote economic growth” (Hayward & Benson, 1993, p. 21). In addition, access to quality vocational education by underrepresented populations of students was the second goal of the Act. “Set-asides,” which were introduced in the

Vocational Act of 1963 were continued and expanded upon in Perkins as the majority of the “set-aside” money was required to be utilized for disadvantaged students.

CARL D. PERKINS FEDERAL VOCATIONAL AND APPLIED TECHNOLOGY EDUCATION ACT OF 1990—PERKINS II (P.L. 98-524)

According to Hayward and Benson (1993), Perkins II “represented the most significant policy shift in the history of federal involvement in vocational-technical education funding” (p. 24). The legislation was created to counter the strongly held belief that many of the nation’s secondary students were not receiving the skills necessary for high performance in the workplace. This act served to emphasize three key areas of need. First, vocational education needed to address academic not just vocational education; in the years prior vocational education was the main concern. Second, more of an emphasis on a link between secondary schooling and college was mandated and this link became known as Technical Preparation or “Tech Prep.” The third area of emphasis was to strengthen student transition from school to work through Cooperative Education programming between vocational education programs and work-based learning opportunities with employers.

CARL D. PERKINS FEDERAL VOCATIONAL AND TECHNICAL EDUCATION ACT OF 1998—PERKINS III (P.L. 98-524)

Perkins III three has played an integral part in shaping the current priorities in career and technical education. Perkins III required academic, vocational, and technical skills of vocational students to be developed further and states were required to report the improvements that were realized through the benefits of the funding. When applying for funding, vocational administrators had to report levels of school performance in four categories (Scott & Sarkees-Wircenski, 2008). These categories included student achievement of in vocational programs and their academic performance levels, the number of industry-endorsed credentials earned by students, student placement rates in post-secondary education or the workforce, and data on the performance of non-traditional students meaning males in traditionally female oriented occupations and vice versa. (Scott & Sarkees-Wircenski, 2008).

FEDERAL NO CHILD LEFT BEHIND ACT OF 2001 (P.L. 107-110)

The No Child Left Behind Act of 2001 changed the way elementary, secondary, and career and technical education in the United States is delivered and assessed. Student performance at the school level is required to be assessed and reported at the state and federal levels (Pennsylvania Department of Education [PDE], 2010). Schools are tracked for performance on academic measures that are tied to mandated achievement targets. Failure to meet the mandated targets places the school at risk or sanctions including loss of funding and closure.

CARL D. PERKINS CAREER AND TECHNICAL EDUCATION (CTE) IMPROVEMENT ACT OF 2006—PERKINS IV (P.L. 109-270)

The most recent federal act affecting career and technical education is P.L. 109-270 the Carl D. Perkins Career and Technical Education Improvement Act of 2006 (Perkins IV). Perkins IV not only regulates fund expenditures but the law also ties student career and technical education student performance and achievement to a school’s eligibility to receive Perkins funding (PDE,

2010). Schools are required to report student performance levels which allows the state to track overall school performance and compare it to other similar institutions regarding student achievement growth in career and technical education programs. Performance assessments that measure student achievement must be industry-based and require students to perform as expected in industrial occupations.

MANDATES AND ACCOUNTABILITY

The pressures placed on educators at the secondary level require schools to keep to strict focus on content goals and student achievement levels. Teachers have difficulty when the students do not have the basic academic skills needed to succeed. According to Shuman (2006), teachers often feel inadequate when teaching content and, simultaneously, having to teach basic academic skills. Many teachers also feel frustrated by the seemingly never ending mandates from state regulator authorities. (Barret Kutcy & Schulz, 2006). Frustration for the teachers appears to be stemming from the pressure placed on them for their students to succeed. (Barret Kutcy & Schulz, 2006).

To respond to this pressure with accurate and effective instructional pedagogies, teachers and administrators could benefit from a system by which their instructional process and student achievement outcomes could be frequently measured and validated for student performance success. Achieving the validation of success could be reached through enhanced and targeted efforts by instructional supervisors to coach teachers and monitor the frequency of teacher behaviors that are associated with higher levels of student achievements. This approach could include frequent short instructional program visits, which are known as administrative walk-throughs.

ADMINISTRATIVE LEADERSHIP

Educational leaders must be able to motivate instructional staff to become better teachers so that job performance tasks are successfully completed (Hoy & Smith, 2007). If educational leaders intend to motivate teachers, an understanding of “influence” and how influence can change behaviors may be helpful. If educational leaders have a positive influence on teacher performance, students could benefit in many ways including higher levels of achievement. For this reason, the six principles of influence-related positive administrative leadership should be employed (Hoy & Smith, 2007):

1. **Attraction** – This principle represents the ability of an educational leader to create a common vision with teachers through connections and common interests in pursuing educational goals.
2. **Reciprocity** – The ability of an educational leader to reciprocate or provide additional assistance when staff members make significant progress on goals involves creating a positive atmosphere so trust can be established and maintained.
3. **Collegiality** – Collegiality represents the development of trust with quality tenured teachers who in turn have influence over others in the faculty.
4. **Commitment** – Educational leaders can demonstrate commitment to their faculty by making a verbal commitment to the faculty, placing their belief in an idea or strategy in writing, which will further portray the leader’s commitment.
5. **Expertise** – Educational leaders should demonstrate their expertise through a commitment to the ideals and pursuing substantial knowledge

on those ideas. The credibility of the educational leader resides in their ability to communicate their expertise in a supportive and constructive manner.

6. Trust – Educational leaders must have trust with their faculty to avoid feelings of suspicion or negative consequences or questions about the leader’s true intentions.

CURRENT TEACHING PRACTICES AND ADMINISTRATIVE WALK-THROUGHS

According to Downey et al. (2004), current teaching practices play an important role in “walk-through” instructional observation because they represent the content or the elements of teacher behaviors that the person conducting the walk-through will “look for.” These are the teacher behaviors that are associated with higher levels of student achievement that a walk-through is designed to document the presence or non-presence of in the classroom. Marzano, Pickering, and Pollock (2001) explain in great detail the six components of effective teaching practices, which can represent important “look fors” in classroom or CTE program walk-throughs. The person conducting the walk-through could document the presence of these teaching strategies/teacher behaviors during each walk-through. An analysis could be conducted on data from multiple walk-throughs to determine the longitudinal presence of the desired teaching strategies and teacher behaviors. The summaries of these practices are listed in the following paragraphs.

IDENTIFYING SIMILARITIES AND DIFFERENCES

Students need to be aware of what they are learning and how the new information is different from previous knowledge. Students who understand this concept have a better chance of utilizing the new knowledge. This practice could be an important part of a walk-through process if leaders desire students to utilize the knowledge in a contextual setting such as career and technical education. For example, when students take summative assessments such as National Occupational Competency Testing Institute (NOCTI) exams and state academic assessments they need to utilize new information in a contextual manner.

The NOCTI offers industry-validated performance assessments that are required for students who complete career and technical education programs in many states. State assessments are also required in various academic subjects such as reading, math, and science to measure student performance in meeting federal requirements and guidelines.

SUMMARIZING AND NOTE TAKING

Teachers with the ability to help students effectively summarize and record notes about new learning usually increase chances of student success. Students need to be able to learn or identify what information is important and what information will be needed for application in a contextual setting such as within a career and technical education (CTE) program. This is not only important to the student in the day to day operations in CTE; but, is also important when trying to understand questions on end of course summative assessments. This component can be documented through a brief but thorough walk-through observation of classrooms or CTE program instruction.

HOMEWORK AND PRACTICE

Homework plays an important role in having students practice and retain information. Often, career and technical programs don't emphasize homework; however, it can be a valuable asset to learning. The purpose of the homework should be identified and articulated. In addition, students should understand that the homework is for extended practice and for continuation of the recently learned knowledge. Homework presented and utilized correctly can help improve student achievement through additional practice and understanding. The presence of this strategy can easily be determined by examining homework assignments, the quality of the homework assignments, teacher lesson plans, or by observing students' written work.

NONLINGUISTIC REPRESENTATIONS

When utilizing this strategy, a teacher attempts to have students identify an image with the content being taught. The image could be a mental picture or a sensation such as an odor or taste. By having students learn in this manner, students can retrieve the information easier at a later time. An educational leader could determine if it were evident by examining lesson plans or observing the strategy being used by the instructor.

IMPLEMENTATION OF DAILY OBJECTIVES

Setting daily instructional or student performance objectives and providing feedback on them is especially important because CTE curricula is designed in context with industry standards, which apply to each program. If this strategy is used by an instructor and the objective is identified for students, it can easily be observed during an administrative walk-through.

USE OF CUES AND QUESTIONS

In addition to utilizing cues and questioning techniques, teachers should enable the students to focus on what is important as opposed to what is unusual. The use of questioning by the instructor can lead to deeper teacher knowledge of student understanding and whether or not additional teaching might be necessary. While performing walk-through observations, the use of cues and questions can be observed and documented by the supervisor.

WALK-THROUGH MODELS AND FORMATS

For many schools, walk-through observations have become an accepted strategy for the purpose of tracking school progress in being more accountable for the achievement of their students. Kachur, Stout, and Edwards (2010), in the book *Classroom Walk-throughs To Improve Teaching and Learning* discuss some examples of successful supervisory walk-through frameworks being implemented across the country/

HALL WALK-THROUGH

This is a five to fifteen minute walk-through model in which teachers have input as to what the "look-fors" will be for the visit. An instructional coach or school administrator conducts the walk-through and leaves a feedback-focused note on the desk of the teacher before departing the classroom. This walk-through style provides immediate feedback for the instructor and can also be used as an evaluation tool. This procedure must be utilized cautiously

given that trust between the supervisor and the teacher is essential toward improvement in instruction.

INSTRUCTIONAL PRACTICES INVENTORY (IPI) PROCESS

This process focuses primarily on student engagement as well as on higher-order thinking among students. As a result, professional development for the school personnel can be identified, designed, and developed based on the prevalence and quality of higher order thinking skills required by teachers to complete assigned tasks.

INSTRUCTIONAL WALK-THROUGH

This walk-through method being utilized by Fairfax County Public Schools in Virginia is a brief non-evaluative visit in which the administrator has “look-fors” as they visit from teacher to teacher. The “look-fors” include instructional practices, curriculum, assessment practices, and the learning environment; all of which affect student achievement.

THE LEARNING KEYS DATA WALKS

This walk-through differs from other walk-throughs because it records and electronically stores walk-through data on instructional elements which are previously determined and understood by the administrator and faculty member.

MAYERSON ACADEMY CLASSROOM WALK-THROUGH (CWT)

In this model, persons conducting the walk-through interact with students by asking to see their completed work. The goals of this walk-through include improvement of learning and instruction, reaching a consensus on meeting the needs of all learners and enabling students to reach or exceed high standards.

PALISADES SCHOOL DISTRICT WALK-THROUGH

This walk-through only occurs once or twice a year and is performed by educators within the district but are based out of a different building. The format takes place all in a day and, instead of traveling throughout all the classrooms, the person conducting the walk-through conducts student interviews. The goal is to understand student perspectives on their learning and an added benefit is that professional development plans for instructors may be developed and based on the data gathered from students during the walk-through.

UCLA SCHOOL MANAGEMENT PROGRAM (SMP) CLASSROOM WALK-THROUGH

The SMP walk-through method has a goal of enabling the instructor to understand their current teaching practice and to clearly identify the instructional changes that teachers much implement to improve. The SMP walk-through is performed by an administrator and any improvements are left up to the individual teacher to decide regarding implementation.

THE DOWNEY WALK-THROUGH METHOD

This model includes a five-step process that is performed with the goal of being in the classroom no longer than three to five minutes. The first step involves observing student work activities and behaviors in the classroom through a window or from a discrete location. Step two focuses attention on the teacher

to identify decisions related to the lesson content. In step three, the observer identifies the instructional techniques being used that enable the students to learn the content. Step four requires the administrator to observe the visual items on the wall to determine the graphic educational environment and understand the general surroundings for learning. Step five involves making sure the safety and welfare of the students is being addressed. This could be as simple as making sure there are not any tripping hazards to checking to see if all the lights are working (Downey et al., 2004).

SCHOOL MANAGEMENT BY WANDERING AROUND

This style of walk-through is based on administrator preference and does not have a strict observational protocol. It is simply embedded in daily administrative work and practices. Time for conducting the walk-through is not rigidly scheduled and the observations are done on an extemporaneous basis depending on the individuals schedule for a given day. A key point of this method is for the administrator to be visible in the building and personally observe events as they unfold. As the administrator or supervisor personally attends to the general operation of the school facility, they have “look fors” that they are integral to their daily work (Kachur, Stout & Edwards, 2010). In addition, administrators need to keep in mind effective school and classroom management so students can learn and are ensured of a positive and safe environment (Frase & Hetzel, 2002).

THE WALK-THROUGH OBSERVATION TOOL

Graf and Werlinich (2002) provide examples of core beliefs that can make the walk-through observation tool successful. The first core belief is that all students, given appropriate supports and time to allow for all abilities, can learn. The second core belief is that pervasive walk-throughs open up the school to allow for coaching and mentoring by fellow teachers and administration by promoting collegiality, collaboration, trust, and commitment.

eWALK WALK-THROUGH TOOL

The eWalk tool is designed to be an electronic database in which data can be collected, stored, and retrieved at a later time for analysis. Walk-through rubrics are integral to this process. As an administrator performs walk-throughs, they are able to collect specific data on each teacher and analyze the data collected from a walk-through at a later time. Once the administrator accesses the walk-through data, graphs can be created using the software to show areas of success and areas of need. The time invested by an administrator entering walk-through data from a sheet of paper into the computer is eliminated because of the electronic nature of the format. Once the walk-through analysis is complete, a copy can be sent to multiple recipients, including the teacher. Data can be kept and walk-throughs can be analyzed from day-to-day, month-to-month, or year-to-year. This tool enables administrators to accurately document classroom and CTE program instructional practices throughout the school on a consistent basis. (M. Curley, personal communication, September 9, 2010).

The preceding review of literature provided evidence that administrators and teachers are accountable for student performance on end-of-course occupational assessments in career and technical education. Additionally, students also understand the need to demonstrate their learning on end-of-course occupational assessments. In addition, current teaching practices

must constantly be monitored to provide educational leaders with the needed information to help instructors teach CTE concepts more accurately and to help students learn and perform better on their job skills, tasks, and occupational assessments. Educational leaders are required to think, analyze instructional and student achievement data, and determine the appropriate strategy they are to facilitate with teachers to increase student performance and achievement. A sound research based instructional monitoring and evaluation system inclusive of walk-throughs can be a major component of overall educational leadership practices of administrators.

RELATIONAL GOALS FOR THE ADMINISTRATOR AND TEACHER

A primary goal of a well designed and well implemented walk-through observational model is to have administrators and teachers collaborate on important instructional issues. Both administrators and teachers need to have the common understanding that high levels of student achievement on local and national summative assessments in CTE are the priority for improving instruction. As previously mentioned, Hoy and Smith (2007) created a list of influential leadership qualities or principles, which can be associated with the educational climate and the implementation of walk-throughs. However, the principle of trust is perhaps the most important.

The principle of trust is something that cannot happen overnight so implementing a walk-through may take prior commitment by the educational leader to ensure there is trust with employees throughout the building. Input and active participation from the teachers represents another important goal of implementing a walk-through. If teachers are not confident about the process and trusting of those implementing the process, the chances of it being successful are not very high. Once trust has been established, walk-throughs can become a vital component of improving the educational process.

CLASSROOM GOALS FOR THE WALK-THROUGH

Marzano, Pickering, and Pollock (2001) outline various techniques and strategies, which were identified in the literature review that enable students to be more engaged and successful in the classroom. Teachers need to understand these new strategies and how they are implemented before participating in a walk-through strategy. Communication and trust is important, as teachers need to be comfortable with administrators to express their levels of knowledge about the walk-through process and what administrators will be expecting to observe during the process.

A support process needs to be in place to enable teachers to learn new strategies through sustained administrator lead or peer lead professional development. For example, one common strategy used for walk-throughs should include measuring student engagement time with the curriculum content being addressed by the teacher.

Another goal should be to measure student engagement and progress towards mastering state mandated program or trade competencies and whether or not teachers identify crucial content to students. Career and technical classroom and program goals should include students obtaining industry credentials, which directly reflect the linkage between the program's curriculum and performance standards in the CTE program's industry.

A PROPOSED WALK-THROUGH MODEL RUBRIC

Previously in this article, multiple walk-through models and their relationships with current teaching strategies were described and highlighted. One strategy for documenting “look-fors” is to have either a paper or electronic rubrics to make sure each teacher is being held to the same standard and to document the presence or lack of presence of an element of the instructional process in a CTE program. Walk-through models such as the Learning Keys’ Data Walk, Teachscape Classroom Walk-Through and the eWalk Walk-Through Tool were used as resources to propose a model for career and technical education.

Although the proposed walk-through is not identical to any one particular walk-through previously described, similarities exist between them. The proposed rubric design was modeled after a combination of the Hall, Instructional, and Downey Walk-Throughs in which specific “look-fors” administrators expect to observe during a walk-through observation. Because the majority of walk-through models only provide overall goals and descriptions, the authors propose a more explicit instrument for career and technical education.

Previously, current teaching strategies discussed by Marzano, Pickering, and Pollock (2001) were also added to the proposed walk-through as specific “look-fors.” Research performed by Marzano, Pickering, and Pollock (2001) indicates that if teachers are utilizing the strategies outlined in the research, student achievement has the potential to increase. The proposed walk-through also requires the administrator or supervisor to observe an objective linked to a standard. Once the objective and standard is identified the proposed walk-through asks if Marzano, Pickering, and Pollock (2001) strategies are being used in the classroom. Finally, the rating scale of the walk-throughs was not mentioned in the literature so a Likert scale was developed to rate each area in the proposed walk-through to assist the person conducting the evaluation. See Figure 1 for the following proposed walk-through model rubric.

CONCLUSIONS AND RECOMMENDATIONS

The review of literature regarding teacher observations and administrative walk-throughs offers a wealth of information for the career and technical administrator. With a focus on increasing student achievement, career and technical leaders can utilize the research and formulate strategies for helping instructors to better target their instruction and provide the instructional coaching that makes a difference in student achievement. Research documented in this paper provides compelling evidence that specific teacher behaviors are directly linked with increased student achievement.

Being able to enhance the quality and presence of those behaviors represents a noble and essential priority for career and technical leaders as they create educational environments that value student achievement. The walk-through approach to teacher observations can significantly add to the arsenal of tools available to the administrator in their efforts to make instructional and teacher classroom changes. The walk-through approach offers multiple methods of observing teacher behaviors. These approaches include a simple five-minute random observation, a weekly consistent observation period, or perhaps a planned longitudinal approach that includes specific teacher behavior detection and generating frequency data on those teacher behaviors.

By utilizing electronic data collection devices such as hand-held computers (e.g., tablets, phones), data can be collected by simply completing an

electronic form and sending it to a central server or connecting it to a desktop or laptop computer. Data collected from multiple walk-throughs can be aggregated, analyzed, and reviewed to determine the frequency and quality of those desirable teacher behaviors which are positively linked by research to increased levels of student achievement. Consequently, the findings from reviewing the data can be reviewed with instructors in a coaching context so they will have evidence of their teaching focus and so they will have detailed information on the behaviors they need to exhibit in a greater frequency. By following this approach, career and technical leaders will have a strong and research-based strategy to measurably increase student achievement in career and technical education.

Date: _____ Teacher: _____			
For each section below the following Likert scale will be used.			
Exceptional	Satisfactory	Unsatisfactory	Poor
Students are on task upon arrival: _____			
Notes: _____			
Instructional Objective/CTE Competencies Posted for Each Student			

Comments: _____			

The objective or competency is based on an industry standard.			

Notes: _____			

Research-based Instructional Strategies Observed			
Identifying Similarities and Differences	_____		
Summarizing and Note Taking	_____		
Opportunities for Student Practice	_____		
Nonlinguistic Representations	_____		
Equipment is Operational	_____		
Appropriate Objectives/Competencies	_____		
Cues/Questions/Instructor Feedback	_____		
CTE Laboratory Program Safety	_____		
Notes: _____			

Date walk-through was reviewed with the instructor. _____			
Over all notes:			

Figure 1. Proposed Model for Walk-Throughs in Career and Technical Education

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ATTITUDES OF VOCATIONAL EDUCATION STUDENTS AT AL-HUSON UNIVERSITY COLLEGE TOWARDS THEIR MAJOR

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ABSTRACT

Researchers examined the attitudes that vocational education bachelor degree students at Al-Huson University College, Al-Balqa' Applied University, Jordan, hold about their major. To achieve the objectives of the study, the researchers used an attitudinal study tool to measure the students' attitudes toward the study of vocational education. This study aimed at investigating the effect of the variables—academic year level, gender, and specialization in the secondary school—on the attitudes of vocational education students towards undergraduate specialization. A random sample of 114 students was chosen from the vocational education bachelor degree students. The results showed the attitude for all members of the study sample had reached the level of 61.95%, the percentage averages of attitudes according to specialization in the secondary schools had ranged between 49.01% for students of science stream, and 68.21% for the students of vocational stream, the existence of statistically significant differences at the level $\alpha = 0.05$ between the averages responses of students (males) and averages of the responses of female students on the attitude scale towards specialization of vocational education with 0.001 level of significance, there are differences of statistical significance ($\alpha = 0.05$) between the responses of students to attitudes test towards specialization of vocational education that is attributed to the academic year level, there are differences of statistical significance ($\alpha = 0.05$) of the responses of students to attitude test towards specialization of vocational education attributed to specialization at the secondary stage.

Vocational education as part of general education (pre-vocational education) is considered a key component in the educational process of the basic school stage (from the first to the tenth grade). With an aim of introducing students in this stage to the world of work and helping them to acquire a set of life skills, vocational educators guide and counsel the students on choosing a career commensurate with their abilities and needs.

Regardless of the instructional approach utilized, one of the goals of technology education within pre-vocational education is to promote technological literacy of a broad and encompassing nature for all students (Technology for All Americans Project (TAAP), 1996; International Technology Education Association (ITEA), 1993). As a result and to reduce the gap between vocational and academic education, the Ministry of Education in Jordan expanded technology education by providing the needed vocational and training education preparation of qualified vocational teachers in all the vocational education facilities in the schools (Directorate of Vocational Education, 1991).

Unique among higher education institutions in Jordan, Al-Huson University College offers a Bachelor degree program in vocational education to prepare qualified pre-vocational teachers and offers a technical and vocational practical training program of vocational education in the Department

of Applied Science. Qualified pre-vocational teachers have the ability to undertake the task of teaching vocational education subjects as part of general education for the students of basic school stage from the first to the tenth grade. The Applied Science program relates applied and theoretical aspects of life skills to the professional fields.

The Al-Huson University College Bachelor degree in vocational education program consists of the following key aspects:

- General knowledge,
- Technical and vocational preparation in a set of professional disciplines,
- Educational and behavioral preparation,
- Field training in the workplace.

The importance of this program stems from the need for qualified teachers necessary for both public and private schools. Graduates have a good opportunity for careers as evidenced by statistic results conducted by Al-Balqa' Applied University (Al-Momani, Al-Balqa' University, Jordan, personal communication). An examination at the regional and international level depicts trends of widespread interest by students to enter vocational education or technological education curricular programs in the neighboring countries. The program offered at Al-Huson University College is the only program in Jordan that is in accordance to the UNESCO requirements of balanced education achievement and highlights the need for specialized vocational teachers at the bachelor degree level.

Proceeding from the educational philosophy of modern universities, Al-Huson University College expanded the education specialization to provide students with knowledge and skills related to intellectual, psychomotor, emotional, and social aspects of building a student's personality, and strengthened the positive attitude towards the vocation of teaching in general.

Psychologists and educators have given more attention to studying attitudes due to the development of attitude as a main goal and mission of education; some educators consider that the development of attitude to be the main objective of the education, (Shrigley, & Koballa, 1984).

Raat and de Vries (1985) investigated the attitudes of middle school students toward technology in order to develop course materials that could apply technological concepts and practices in a physics curriculum. The project titled Pupils' Attitudes Toward Technology (PATT) sought to determine students' attitudes toward technology and their understanding of technological concepts. Raat and de Vries concluded that: (a) students had only a vague concept of technology, (b) the relationship of technology to physics was very obscure to students, particularly among girls, and (c) girls are less interested in technology and see it as less important. Thus, if one of the educational goals of technology education were technological literacy, then students exhibiting a positive attitude toward technology would be more likely to attain technological literacy through technology education (Bame, Dugger, de Vries, & McBee, 1993).

The positive attitudes of the students toward their specialization course at the University level, is considered one of the main variables that contributes in improving their performance and academic achievement. Regarding the definition of the attitude, it appears there is no agreement between the educators and psychologists in this regard, as evidenced by the list of

definitions contained in educational and psychological research (Zaitoon, 1988)

- Mental readiness makes the individual act in a certain manner in different issues and situations.
- Individual response for certain situations in terms of acceptance or rejection.
- Meaning which links the individual with a certain issue or idea of how this meaning affects the individual to accept or reject this issue or idea.

And, as an educational and psychological phenomenon, Zaitoon (1988) has pointed out that attitude is a collection of components of cognitive, behavioral, and emotional response related to the individual in terms of acceptance or rejection of the topic or issue or position.

Shrigley and Koballa, (1984) referred to this plurality of definitions as the concept of the attitude itself is elusive to a large extent. Given the characteristics of attitude Shrigley (1983) confirmed to pay attention and take into account the following characteristics of attitudes in:

1. Attitude educated.
2. Attitude predicted the behavior of the individual.
3. Attitude affected by the behavior of others - social attitudes.
4. Attitude preparations for a response.
5. Attitude is measurable.

STATEMENT OF THE PROBLEM

Specialists in education confirm that the development of positive attitudes among students is a component of basic education. Positive attitudes are to be achieved in all academic levels. If students have a positive experience in a technology education program develop a positive attitude toward technology and the pursuit of technological careers, then they are expected to be more interested in studying about technology. As a result, students should become more technologically literate. This premise is grounded in research from the affective domain that indicates that students who exhibit a positive attitude toward a subject are more likely to actively engage in learning during and after instruction (Popham, 1994).

This study was to identify the level of scientific attitudes in vocational education students majoring at Al-Huson University College in Jordan and investigate the impact of identified factors in the attitudinal acquisition of these students. Specifically, this study aimed to identify the level of scientific attitudes in students majoring in vocational education at Al-Huson University College in Jordan and to investigate the effect of school year and gender in the acquisition of these attitudes.

STUDY QUESTIONS

The study investigated the following questions:

1. What are the attitude levels of the students majoring in vocational education at Al-Huson University College, Jordan, towards their respective undergraduate course and what criterion level is reached?

2. Is there any difference in attitude levels of the students majoring in vocational education at Al-Huson University College, Jordan, towards their respective undergraduate course by gender?
3. Is there any difference in the attitude levels of the students majoring in vocational education at Al-Huson University College, Jordan, towards the undergraduate course by academic year?
4. Is there any difference in the attitude levels of students majoring in vocational education in Al-Huson University College, Jordan, towards the undergraduate course by specialization in secondary school?

HYPOTHESES OF THE STUDY

The present study aims at investigating the following hypotheses:

1. There are no statistically significant differences at $\alpha = 0.05$ in the mean scores of the attitude levels of the students majoring in vocational education at Al-Huson University College in Jordan towards their respective undergraduate course with respect to their gender.
2. There are no statistically significant differences at $\alpha = 0.05$ in the mean scores of the attitude levels of the students majoring in vocational education at Al-Huson University College in Jordan towards the undergraduate course with respect to their school year.
3. There are no statistically significant differences at $\alpha = 0.05$ in the mean scores of the attitude levels of students majoring in vocational education in Al-Huson University College in Jordan towards the undergraduate course with respect to their specialization in secondary school.

IMPORTANCE OF THE STUDY

The importance of the current study refers to the interest of educational institutions in Jordan to the development of positive attitudes among the students, which recently have been increasing steadily. In addition, the National Conference for Educational Development for 1988 has pointed to the importance of attitude development of students (Resalt Al Moa'alem, 1988).

The importance of this study lies in its quest to find out about the level of the attitude towards specialization course to students majoring in vocational education at Al-Huson University, one of Al-Balqa' Applied University colleges. Al-Huson University vision includes the preparation of graduates with high level of ability to apply what they have learned in the workplace and to continue learning in response to technical and organizational workplace environment changes (Al-Balqa' Applied University Study Plan, 1999). This study also provides a level of awareness of student attitudes toward their specialization and explores the impact of factors that may affect the students' acquisition of these attitudes. The results can be considered when planning for the construction of the programs offered at the University and in recognition of the effectiveness of educational programs at the University in the development of students' attitudes.

OPERATIONAL DEFINITIONS

Attitude is theoretically defined as a set of components of cognitive, behavioral, and emotional response resulting in the individual response towards a

situation in terms of acceptance or rejection (Zaitoon, 1994). In this study, attitude was measured as the individual's response towards the situation and issues presented in paragraphs. An attitude scale was created to indicate a student's performance on the items.

Vocational Education Major is the bachelor degree program of which the study sample belongs to and is offered by the Department of Applied Science at Al-Huson University College, Al-Balqa' Applied University, Jordan.

Vocational education is the kind of formal and systematic education, which includes the educational preparation and the acquisition of manual skills and professional knowledge. Vocational education is provided by the educational organizations of high school level for the purpose of preparing skilled workers in various fields of industrial, agricultural, health, administrative, and other fields after primary school (1st-10th class) with a period of 2–3 years of preparation in the secondary school level. Vocational education graduates should have the ability to carry out the tasks assigned to them according to their specialization and levels of preparation. These graduates are also a link between technicians and non-skilled workers in the hierarchy of employment. This concept includes the vocational training which is in the specialized vocational training centers whether public or private training (Gharaibeh, 2000).

Pre-vocational education is primarily designed to introduce participants to the world of work and to prepare them for entry into further vocational or technical programs. Successful completion of such programs does not lead to a labor-market relevant vocational or technical qualification (OECD, 2002).

Technology is the making, usage, and knowledge of tools, techniques, crafts, systems, or methods of organization in order to solve a problem or serve some purpose.

METHODOLOGY

STUDY POPULATION

The study population consisted of 621 male and female students enrolled in the second semester of the academic year 2008/2009 of Al-Huson University College, Al-Balqa Applied University, Jordan, in vocational education program bachelor degree.

THE STUDY SAMPLE

The study sample consists of 114 students who were selected from the study population randomly. Table 1 shows the distribution of the sample by academic year level and gender. Table 2 shows the distribution of the sample according to the secondary school streams and gender.

Table 1. *Distribution of the sample by academic year and gender*

Gender	Academic Year				
	1st Year	2nd Year	3rd Year	4th Year	All Years
Male	12	7	21	5	45
Female	15	23	14	17	69
Total	27	30	35	22	114

Table 2. *The Distribution of the Sample According to the Secondary School Streams and Gender*

Gender	Secondary School Streams			Total
	Scientific	Literary	Vocational	
Male	20	14	11	45
Female	6	42	21	69
Total	26	56	32	114

INSTRUMENTS OF THE STUDY

To achieve the objectives of the study, the researchers used an attitudinal study tool to measure the students' attitudes toward the study of vocational education. This study tool was created by modifying the study tool used for the measurement of attitude towards the study of physical education study tool prepared by Magableh, et al. (1996). The new tool has 42 of scale items in five areas: specialization of vocational education, use and benefit of the vocational education, teachers, vocational education as a science among other sciences, and social perception of vocational education. The Cronbach Alpha coefficient of internal consistency of the scale as a whole (0.94) was calculated.

PROCEDURES OF THE STUDY

The study tool was applied during the third week of the month of April 2009, the second quarter of the academic year 2008/2009. The study tool was distributed to the members of the sample by the researchers as they meet with members of the sample of the study to clarify the objective of the study to them and how to answer the paragraphs of the tool. It took sixty minutes for application testing and the application process took three days.

STUDY VARIABLES

The study included the following variables:

Independent variables

1. Course level, four levels
2. Gender, two levels (male and female).
3. Specialization in the secondary school, three levels (Scientific, Literary, and Vocational).

Dependent variable: the attitude toward specialization.

STATISTICAL ANALYSIS

The researchers have used the following statistical analysis procedures to answer the research questions for the study:

1. Averages and standard deviations to recognize the differences between the study variables.
2. A t-test to test if there are significant differences in attitudes attributed to gender.
3. Analysis of variance to investigate the effect of variable-level course on the attitudes of students toward specialization.

4. Analysis of variance to investigate the effect of specialization variable in the secondary school on the attitudes of students towards their respective specialization.

RESULTS

This study investigated the effect of academic year level, gender, and specialization in the secondary school on the attitudes of 114 randomly chosen vocational education students at Al-Huson University College, Al-Balqa' Applied University, Jordan, towards undergraduate specialization.

RESULTS FOR THE FIRST QUESTION

The first research question: What are the attitudes level of the students majoring in vocational education in the Al-Huson University College in Jordan towards their respective undergraduate course and what criterion level is reached? The calculated mean and standard deviations are presented in Tables 3 and 4 to illustrate these averages and standard deviations and to form a detailed picture of the performance of the sample to test the scientific attitude.

Table 3. *Averages and Standard Deviations of the Total Mark of Student Responses to the Items of the Scale by Gender*

Gender	<i>M</i>	<i>SD</i>	Average Percentage
Male	118.24	29.40	56.30
Female	137.84	29.92	65.64
Total	130.11	31.11	61.95

It is seen from Table 3 that the average percentage of students' attitudes for the study sample had levels of 56.30% for males and 65.64% for females. The average percentage of the attitude for all members of the study sample had reached the level of 61.95%.

It is seen from Table 4 that the average percentage of scientific attitudes by course level ranged between 53.47% for first-year students, and 67.47% for the fourth-year students.

Table 4. *Averages and Standard Deviations of the Total Marks of Student Responses to Items of the Scale by Course Level*

Course Level	<i>M</i>	<i>SD</i>	Average Percentage
Freshman	112.29	25.59	53.47
Sophomore	136.00	33.32	64.76
Junior	131.51	30.58	62.62
Senior	141.68	29.99	67.47
Total/Students	130.11	31.11	61.95

It is seen from Table 5 that the percentage averages of attitudes according to specialize in the secondary schools had ranged between 49.01% for students in the science stream and 68.21% for the students in the vocational stream.

Table 5. *Averages and Standard Deviations of the Total Marks of Student Responses for the Items of the Scale According to Specialization in the Secondary School*

Secondary School Streams	M	SD	Average %
Scientific	102.92	17.85	49.01
Literary	135.21	31.35	64.39
Vocational	143.25	26.13	68.21
Total/Students	130.105	31.11	61.95

RESULTS FOR THE SECOND QUESTION

The second research question: Is there any difference of attitude levels of the students majoring in vocational education in the Al-Huson University College, Jordan, towards their respective undergraduate course according to their gender?

To answer the question, the researchers extracted the averages and standard deviations of the study sample and for each of the students as shown in Table 3 and used a t-test to examine the differences between averages. The results indicate the existence of statistically significant differences at the level $\alpha = 0.05$ between the average responses of male students and average responses of female students on the attitude scale towards specialization of vocational education, $t(114) = 3.44, p = 0.001$, with women responding higher than men.

RESULTS FOR THE THIRD QUESTION

The third research question: Is there any difference of attitude levels of the students majoring in vocational education in the Al-Huson University College, Jordan, towards the undergraduate course according to their respective academic year?

To answer this question, researchers completed a one-way analysis of variance of the responses of students by academic year. Table 4 depicts the mean data for the student responses. The results indicate a significant difference exists at $\alpha = 0.05$ between the attitude responses of students towards their specialization of vocational education by the academic year level, $F(3,110) = 4.78, p = 0.001$.

To find out the direction of differences between groups of students study according to specialization, the least significant difference (LSD) method was used to make comparisons to show where significant differences exist at the level of $\alpha = 0.05$. Significant differences were found between the attitudes average of first-year students toward specialization and between each of the students in the second, third, and fourth years. No significant differences between were found between the students in the second, third, and fourth years.

RESULTS FOR THE FOURTH QUESTION

The fourth research question: Is there any difference of attitudes level of students majoring in vocational education Al-Huson University College, Jordan, towards the undergraduate course according to their respective specialization in the secondary school?

To answer this question and find out whether there were statistically significant differences between the responses of students to attitude test

towards vocational education specialization attributed to their specialization in the secondary stage the researchers completed a one-way analysis of variance. Table 5 depicts the mean data for the student responses. The results indicate a significant difference exists at $\alpha = 0.05$ between the attitude responses of students towards their specialization of vocational education by the secondary stage, $F(2,111) = 17.48, p < 0.001$.

To find out the direction of differences between groups of students study according to specialization, the LSD method was used for post comparisons to show where significant differences at the level of $\alpha = 0.05$. Significant differences were found between the attitudes average of the students of scientific stream in the secondary stage and the students of literary and vocational streams in the secondary stage. No significant differences were found between the students of literary and vocational streams in the secondary stage.

CONCLUSIONS AND RECOMMENDATIONS

The results on the first research question's data described in Table 3 indicated that the attitude level of students majoring in vocational education towards their specialization is equal to 61.95% of the maximum score on the test for all students. Examination by gender scores depicted 56.30% for males and 65.64% for females. The scores ranged between 53.47% for first year level and 67.47% for the fourth year level students as shown in Table 4. Shown in Table 5, the scores ranged between 49.01% for the students at scientific stream in the secondary stage and 68.21 for the students at vocational stream in the secondary stage.

It is noted from these results that the level of the attitudes towards specialization of vocational education to the students majoring in vocational education at the college and male and female students at all levels was acceptable.

The findings revealed that there is a weakness in the level of attitudes in the level (49.01%) for the students of scientific stream in the secondary stage and this can be attributed to the unwillingness of students majoring in scientific stream in the secondary stage for the specialization of vocational education and their desire to other scientific disciplines.

In regard to the second question, the results of the study indicated that the level of attitudes in female students (65.63%) were higher than the male students (56.30%). The results of the t-test of the differences between the mean performances of students indicate the existence of statistically significant differences between the performances of students can be attributed to gender. This can be attributed to the fact that female students are more inclined and willing to work in the field of education rather than males.

In regard to the third question of the study, analysis showed that there were statistically significant differences in the level of student responses on a scale of attitudes attributed to the year level between the attitude average of first-year students toward specialization and all the students from the second, third, and fourth years and an absence of differences between the students in the second, third, and fourth years. This can be attributed to the fact that students in the first year have not acquired the skills of specialization, which can lead to the acquisition of positive attitudes towards vocational education specialization. However, the second, third, and fourth year students may have acquired educational experiences that have helped develop attitudes towards

specialization; educational experiences can be a cause attitude development of the students.

In regard to the fourth question, the study results showed that there were statistically significant differences in the level of student attitude test response attributed to the stream of the students in scientific stream and when compared to the students in the literary and vocational streams may be due to the fact that students of the scientific stream vision of vocational education specialization that it is non-scientific disciplines, which they want to study but have been accepted it without desire.

In the light of these findings the following recommendations are emerged from the study:

1. Attention should be given to the educational objectives of the various cognitive, emotional, and psychomotor domains in education rather than focus on one aspect and neglect all the other aspects.
2. To achieve the formation of best positive attitudes among the students, teachers of the specialization should create appropriate educational and learning opportunities through the preparation and implementation of appropriate activities and scientific programs for the curricula and extracurricular.
3. Attention should be given to improve and develop the curriculum to become more modern and relevant to students of what can be a positive reflection on the learning processes outcomes among the students and improve their attitudes towards specialization.
4. Re-conduct the study using a larger sample and other variables in addition to the current variables.

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MOTIVATION AND ATTITUDES OF VOCATIONAL EDUCATION FEMALE STUDENTS TOWARD LEARNING ENGLISH

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ABSTRACT

This paper presented the results of a survey which was carried out to identify vocational education female students' motivation and attitudes towards learning the English language. The study investigated students' motivation in terms of three motivational constructs: instrumental motivation, integrative motivation, and personal motivation. Learners' attitudes, on the other hand, regarding the use of English in Jordanian educational, social, and cultural contexts were identified. The study sample consisted of 56 vocational education female students at Al-Huson University College, Al-Balqaa University, Jordan. A three section questionnaire was used for data collection. For the students' motivation, the findings showed the subjects' greater support of instrumental reasons for learning the English language including practical and academic reasons. Personal reasons were also regarded as important motives by the students. However, regarding the integrative reasons, the results provided evidence that learning English as a part of the culture of its people had the least impact in students' English language motivation. On the other hand, data for the students' attitudes revealed that most of students had positive attitudes towards learning English as early as grade one at schools as well as having a positive orientation toward the English language itself represented in their desire to be like the native speakers of English. Interestingly enough, the results indicated that a high number of the students showed their interest in the culture of the English speaking world as represented by English-language films.

This paper addresses itself to a very important factor in language learning that is motivation. Aggrawal has an interesting statement in this regard in which he states that "Motivation arouses interest, interest is the mother of attention and attention is the mother of learning. Thus to secure learning you must first catch the mother, grandmother, and great grandmother." (Aggarwal, 1996, p. 46)

From the above statement one could say that motivation is the hardest part to foreign language learning. The task can be enormous, so endless, that after the initial period of enthusiasm it is tempting to give up learning a second or a foreign language, as the majority of people, who do not live in a foreign country, do not have bilingual parents, and do not want to move abroad requires a lot of work over a long time period. Once you have accepted this it is much easier to enjoy and be successful at learning another language.

As English is considered nowadays as the language of science and technology, students around the world are encouraged to learn the language since it opens avenues for them to enjoy better opportunities for their future jobs. However, vocational education female students' at Al-Huson University College have been described as low-competent in the English language

(Ababneh & Al-Momani, 2011). Vocational education students are really poor achievers in English language; as a result of their poor performance in English most of them fail their English courses presented in the college.

There are many factors that might cause the students' low proficiency in English. One could be attributed to students' motivation towards the English language. This is because learners' motivation has been widely looked at as one of the keys to successful language learning and maintaining a high level of motivation during a period of language learning and it is one of the best ways to make the whole process more successful; because it provides the primary impetus to initiate learning the foreign language and later the driving to sustain the long and often tedious learning process. Indeed all the factors involved in L2 learning presuppose motivation to some extent. As each individual is motivated in different ways, we have to find the right balance of incentives to succeed or disincentives to fail, encouragements, and the right environment in which to learn. Another factor is learners' attitudes. This is because an EFL learner's motivation in language learning is affected by his/her attitudes towards learning the language. The relation between motivation and attitudes has been considered a prime concern in language learning research. Gardner and Lambert (1972, p. 3) state that "his [the learner] motivation to learn is thought to be determined by his attitudes towards the other group in particular and by his orientation towards the learning task itself." In addition, Lifrieri (2005, p. 14) asserted that "attitudes are necessary but insufficient indirect conditions for linguistic attainment. Only when paired up with motivation proper do attitudinal tendencies relate to the levels of student engagement in language learning, and to attainment."

All in all, a better understanding of students' motivation and attitudes may assist ESL/EFL curriculum and instructional designers to devise language teaching programs that generate the attitudes and motivation most conducive to the production of more successful ESL/EFL learners (Gardner & Lambert, 1972; Midraj, 2003). Additionally, it can help material writers create and teachers select activities and tasks that tap students' motivation and attitudes (Midraj et al., 2008).

Besides the significant role of learners' motivation and attitudes in the learning process, the lack in the literature regarding studies on vocational education female students' motivation and attitudes in the Arab World has been another motive to conduct the present study.

As these types of learners might have their specific motives and attitudes towards learning English, the present investigation would contribute to understand such issues with regard to vocational education female students at Al- Huson university college, Jordan. This could also serve as a reference for instructors and syllabus designers at Al Huson University College to improve the situation of English language teaching with respect to students' motivation and attitudes.

OBJECTIVES OF THE STUDY

This study aims at investigating vocational education female students' motivation and attitudes towards learning the English language. The objectives are as follows:

- To determine which of the three types of motivation (instrumental, integrative and personal) could be the primary source of vocational

education female students' motivation towards learning the English language.

- To determine the type of attitude that vocational education female students have towards learning the English language.

LITERATURE REVIEW

This part will provide a review of the literature relevant to the research objectives and it will include a brief overview of the concepts of motivation and attitudes and a review of the related studies.

MOTIVATION

The word motivation is derived from the Latin word “movers” which means to move. Therefore motivation is an internal force that accelerates a response or behaviour. So learners are willing to direct their energies in the order to obtain their goals (Aggarwal, 1996, p. 47).

Within a view to having a pedagogical understanding of the term motivation, the researcher spots the light on certain definitions of motivation given below:

Blais, G.M. et al. (cited in Aggarwal, 1996, p. 47) regard motivation as the process in which the learner's internal energies or needs are directed towards various goal objectives in the environment.

Kelly (cited in Aggarwal, 1996, p. 47) refers to motivation as the central factor in the effective management of the process of learning.

Lovell (cited in Aggarwal, 1996, p. 47) is of the view that motivation in school learning involves arousing, persisting, sustaining, and directing desirable behaviour.

Crookes and Schmidt (1991) defined motivation as the learner's orientation with regard to the goal of learning a second language.

Brown (2001) also defined motivation as “Motivation is the extent to which you make choices about (a) goals to pursue and (b) the effort you will devote to that pursuit” (p.72).

From the above definitions it could be said that motivation is actually having a purpose in learning and if we are speaking about learning a language it means wanting to learn that language for a reason.

Brown (2001, p. 75) divided motivation into two basic types: integrative or intrinsic and instrumental or extrinsic. He distinguished between those two types of motivation the integrative or intrinsic motivation is looked at as the “desire to learn a language stemming from a positive affect towards a community of its speakers” (Brown, 2001, p. 75). On the other hand, he used extrinsic or instrumental motivation to refer to the “desire to learn a language in order to attain certain career, educational, or financial goals” (Brown, 2001, p. 75).

Benson (1991) constructed a third group labeled as personal. This category included motivational reasons such as “pleasure at being able to read English, and enjoyment of entertainment in English.”(Benson, 1991. p. 36)

It is also proved that if the learners are given the opportunity to do the language for their personal reasons they will have better chances of success. (Brown, 2001, p. 77)

Brown (2001, p. 60) added on this point that “successful mastery of the second language will be due to a large extent to a learner’s own personal investment of time, effort, and attention to the second language in the form of an individualized battery of strategies for comprehending and producing the language.”

ATTITUDES

Attitude has recently received considerable attention from both first and second language researchers. Most of the researches on the issue have concluded that student’s attitude is an integral part of learning and that it should, therefore, become an essential component of second language learning pedagogy; in order to understand students’ attitudes, let us begin with the definition of the term, attitude.

Triandis (1971) accepts that it is a manner of consistency toward an object. Kırimsoy (1997) emphasizes the fact that attitudes play a significant role in an individual life and that our culture has the power to shape our life and feeling and therefore our attitudes towards the external world.

Gardner (1985, pp. 91-93) believes that attitude is an evaluative reaction to some referent or attitude object, inferred on the basis of the individual’s beliefs or opinions about the referent. He considers attitudes as components of motivation in language learning, and according to him, “motivation ... refers to the combination of effort plus desire to achieve the goal of learning the language plus favorable attitudes toward learning the language” (p. 10).

Attitude according to Brown (2001, p. 61) is characterized by a large proportion of emotional involvement such as feelings about self, relationships in community, and emotional ties between language and culture.

Brown (1994, p. 168), claims that “attitudes, like all aspects of the development of cognition and affect in human beings, develop early in childhood and are the result of parents’ and peers’ attitudes, contact with people who are different in any number of ways, and interacting affective factors in the human experience.”

Sönmez (1994, p. 64), shares the same idea with Brown; “attitude is a product of all life experiences.” Therefore attitude may not come out during school life. But it is the duty of school to help students develop positive attitude towards foreign language.

Chamber (1999) asserts that learning occurs more easily, when the learner has a positive attitude towards the language and learning. Gardner and Lambert (1972) in their extensive studies give evidence that positive attitudes toward language enhance proficiency as well.

METHOD

This study was conducted to identify vocational education female students’ motivational and attitudinal orientations in learning the English language. To achieve this objective, the researcher adapted a questionnaire from Al-Tamimi and Shuib (2009) as a research tool.

PARTICIPANTS

The participants of the study were purposefully chosen from the female students registered in the second semester of the academic year 2010/2011 in Fundamentals of Vocational Education, a vocational education course given at Al-Huson University College. Only female students fill in the questionnaire

as the researcher wanted to measure their motivation and attitudes towards learning English, because there are no such studies that cater for studying only the vocational female students' motivation and attitudes as far as the researcher knew. The number of the participants was 56 female students.

INSTRUMENTS

The primary method of inquiry used in this study was a questionnaire. It consisted of three sections: A, B and C. In Section A, three items were used to collect information regarding the students' background. Section B consisted of two parts which included questions to identify students' motivation to learn the English language. The researcher adapted these questions from Al-Tamimi and Shuibas (2009). The questionnaire items represented the three motivational constructs namely, instrumental motivation (items 1, 2, 3, and 4), integrative motivation (item 7). and personal motivation (items 5 and 6).

In the second part of Section B of the questionnaire, the students were asked to answer a question on whether or not they were interested in attending more English language training courses to improve their proficiency in the English language. Answering such a question was of great importance to know about their *desire* for learning the language which was considered one of the main components of language learning motivation (Gardner, 2006). Section C of the questionnaire was used to elicit information regarding the students' attitudes towards the English language. In this section, the students were given *eight* statements (items) for which they were requested to specify their responses by choosing any of the three alternatives provided, namely, *agree*, *disagree*, and *don't know*. The items were divided into four main categories: attitudes towards the use of English in the Jordanian educational context (items 3, 4, 5, and 6), attitudes towards the use of English in the Jordanian social context (items 1 and 2), attitudes towards the English language (item 7) and attitudes towards the culture of the English Speaking World (item 8).

DATA COLLECTION

Given the description of the questionnaire items, this part presents the procedures used in the administration process. In April 2011 the researcher started carrying out the main study at the Al-Huson University College. Before administering the questionnaire, permission was sought from the professor who taught the Vocational Education course and the time was arranged with him. Prior to distributing the questionnaire, the students were informed of the objectives and significance of the research. They were also requested to state their true and honest responses. In addition, the subjects were informed to ask for any clarifications they might have. Then, the questionnaire was distributed.

DATA ANALYSIS

The present study basically ought to identify vocational education female students' motivation and attitudes towards learning English, so the data collected from their responses on the questionnaire items was analyzed in terms of means, using the Statistical Package for Social Sciences (SPSS), and percentages were also computed.

LIMITATIONS OF THE STUDY

The generalizations of the findings of this study unfortunately suffer from the following limitation: This study is limited to the female students registered in the second semester of the academic year 2010/2011 at the course of fundamentals of vocational education. The researcher purposefully chose female students and there was only one section of this course and the section has both male and female students; that explains the small number of the subjects of the study. A larger sample would be more representative to the results of the present study.

RESULTS AND DISCUSSION

This section aimed at introducing the analysis of the data collected. It is divided into two main sub-sections: the students' motivation to learn English and their attitudes toward the English language.

MOTIVATION TO LEARN ENGLISH

This sub-section presents the questionnaire findings related to students' motivation to learn English.

Table 1 presents the mean values representing the subjects' responses on the first question which identifies the students' motivation towards learning the English language; they were asked to rank a list of six reasons in terms of importance in enhancing their learning of the English language. The means are simply the arithmetic average of the responses with 1 point assigned for "not important," 2 for "of little importance," 3 for "of some importance," 4 for "important," and 5 for "very important." Second, the students were asked to answer a question on whether or not they are interested in attending more English language training courses to improve their English proficiency.

Table 1. *Results for Student's Motivation for Learning English (n = 56)*

Motivational Constructs	Reasons for Learning English	M	SD	Construct M
Instrumental motivation	1. Because it will enable me to carry my tasks more efficiently.	4.30	.9	3.77
	2. Because it will enable me to get 4.500 job easily.	3.78	1.2	
	3. Because I hope to further my education.	4.23	1.1	
	4. Because it is a university requirement.	2.78	1.6	
Personal motivation	5. For a personal development.	4.23	1.2	3.74
	6. Because it will enhance my status among my friends.	3.25	1.5	
Integrative motivation	7. To integrate with the western culture.	2.50	1.6	2.68
	8. Others (please specify)	2.87	1.8	
	<i>Total</i>	3.56	.60	3.39

By having a look at the results presented in Table 1, one can conclude that there is a statistically significant relation for this reason to the main aim of research because the weighted mean is 3.5. This means that these reasons are important in the orientations of the students towards learning English. In order to understand the statistics presented in Table 1 regarding the objective of the present study that is to what extent are the students motivated to learn English and what motivates them most, it is clear that the students are instrumentally motivated towards learning English since the overall mean of

the items related to this type of motivation scored the highest mean among the other two with (3.77).

For example, the students highly favored learning English for the purpose of giving them the ability to carry their tasks more efficiently as this reason had received the highest mean score (i.e., 4.30). People in Jordan and especially the youth strongly believe that learning English opens avenues to them and helps them to be successful workers and learners as English is the language of study as a lot of research is required in English. In addition to that many jobs require mastering English, such as working in banks and other modern companies that have international branches.

Next to this item came Learning English because they hope to further their education with a meanscore of 4.23. This could be explained by the fact that passing the English TOEFL exam is a prerequisite condition for furthering graduate studies in Jordan in all the subjects taught in Jordanian Universities.

The third instrumental motive i.e. because it will enable me to get 4.500 job easily is also considered as important reason to the students with 3.78 mean score because many jobs require mastering English, such as working in banks and other modern companies that have international branches.

The last motive with the least mean score (2.78) was as it is a university requirement, and this might be explained as most Jordanian students believe that English at universities can helpful for them and it is not a kind of burden and thus they learn it because of its importance not because it is required.

Second comes the personal type with (3.74) mean score. The personal motives scored high means with 4.23 and 3.25 for items 5 and 6 respectively. This result could be due to the fact that Jordanian people like to learn and master English for the sake of communicating and watching films, listening to English songs, and if you listen to some radio stations in Jordan you would not believe the number of people trying to use English while speaking on air. This fact applies to many university students who communicate with their friends using new means of communication like facebook or twitter using English. Moreover, people believe that if one uses some English vocabulary while speaking then everyone would consider him/her educated and civilized and that reflects the importance of mastering English for personal reasons. Integrative motivation was the last type that motivated the students as its mean score was 2.68. As learning English to be a part of the culture of its people was regarded by all the interviewees as having the least impact on their English language motivation as it had the least mean score between the all motives with 2.50.

Subjects of the study were asked whether they would like to attend more English language training courses which will help them improve their proficiency in the language The answer to this question requires the students to choose either "yes" or "no." Fifty-four (96.4%) subjects responded "yes." This result really reflects the real desire of those students as they are poor achievers in English courses and they need extra courses to improve their language.

ATTITUDES TOWARD THE ENGLISH LANGUAGE

This sub-section presents the questionnaire findings related to the students' attitudes toward the English language.

The analysis of the data was based on the students' responses to eight statements, for which they were required to tick any of the three alternatives,

namely *agree*, *disagree* and *don't know*. Percentages were given to enhance the data analysis as can be shown in Table 2.

Table 2. *Results About Students' Attitudes Toward Learning English (n = 56)*

Questionnaire Item	%		
	Agree	Disagree	Don't Know
1. The development of our country is possible mainly by educated people who know English well.	21.4	66.1	12.5
2. The use of English in government and business offices helps in getting things done easily.	17.9	69.6	12.5
3. English should not be a compulsory subject in secondary schools in Jordan.	33.9	60.7	5.4
4. English should be the medium of instruction in the secondary schools in Jordan.	23.2	71.4	5.4
5. At least some subjects like Physics and Chemistry should be taught in English at the secondary level in Jordan.	32.1	55.4	12.5
6. The teaching of English should start as early as the first grade in the Jordanian schools.	92.9	5.4	1.8
7. English films are more enjoyable than films in any other language.	57.1	35.7	7.1
8. When I hear someone speaks English well, I wish I could speak like him/her.	91.1	8.9	0.0

Table 3 shows the percentages of students' responses on each questionnaire item that cater for determining their attitudes towards learning English. The findings in Table 3 show that the majority of the subjects (92.9%) believe that the teaching of English should start as early as the first grade in the Jordanian schools, following this item comes the last one in which 91.1 percent of the students show that they have great desires towards speaking English well like fluent speakers. In addition to that 57.1 percent of the students find the subjects' English films are more enjoyable than films in any other language. On the other hand, the subjects' responded negatively to the idea of using English as the medium of instruction in secondary schools in Jordan with a percentage of 71.4 percent. This could be due to the fact that the subjects of the study are poor English learners and they of course would not approve the idea of using English in teaching at schools. Moreover, there are certain school subjects like Arabic and religion that could not be taught in English in Arabic speaking countries even in international schools. The subjects also show strong disagreement to the use of English in government and business offices and they also give a close percentage in disagreement on the first item (66.1%) and the third one with 60.7 percent. The least percentage in disagreement goes to the sixth item as teaching English at Jordanian schools actually starts at grade one.

CONCLUSION AND PEDAGOGICAL IMPLICATIONS

This study aimed at investigating the vocational education female students' motivation and attitudes toward learning the English language. For the students' motivation, the results showed that instrumental motivation was the primary source of the students' motivation toward learning the English language. Personal reasons were also regarded as important motives to them. However, in regards to the integrative reasons, the results provided evidence

that learning English to be part of the culture of its people had the least impact in students' English language motivation. This conclusion confirms with findings of other studies conducted in the Arab world such as Al-Tamimi and Shuib (2009).

In reference to the students' attitudes, the findings revealed that the students have positive attitudes towards the use of English in Jordanian educational context as most of the students respond positively to the teaching of English since grade one. They also have positive attitudes towards the English language itself and they like to master it like native speakers. Moreover, they find English films more enjoyable than other ones.

The findings of the present study could add a stone to the wall of teaching and some implications could be drawn and taken into consideration by both English instructors and syllabus designers. The implications are as follows:

The study showed that vocational education students are instrumentally motivated. Therefore, English language courses should be designed to fulfil this purpose. In other words, students should take English courses which enable them to function effectively at both their academic and occupational settings.

As the students have greater desires to learn the English language for both personal and academic reasons, therefore, the nine credit hours presented at Al- Balqa'a Applied University for vocational education students may be not sufficient to help the students to master an adequate level in English and to function effectively. Thus the number of the courses should be increased so that English in order to improve students' abilities in English.

In summary, to develop the students' abilities in English and to meet their desires in learning the language, there is a need to consider why do the students want to learn English and what aspects do they need to acquire most. By doing so, instructors are empowering vocational students with the right tool that helps them to be more effective and able to express themselves in a foreign language fluently a matter that give them the opportunity to be independent and successful workers in their future life. Thus, this is our task to revise what we teach at our universities and correct our direction for the sake of the future generations as " the highest priority of today's college educators should be making their students effective lifelong learners" (Sizoo, Arusa & Wilfried, 2005, p. 527).

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