

KWL: As a Tool to Enhance Holistic Skills and Language through Literature

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Abstract—Interconnection happens for a purpose where every little action creates a change. Basically, the human brain holds the power of competence but the level of its maintenance is least concerned. So, there is a need for an effective tool to balance the efficacy of the human mind, and also the mechanism should let work the brain persistently. Donna Ogle's KWL chart has the quality to activate holistic skills. K-W-L (Know- Want to Know- Learnt) is a general method where it can be dealt by everyone in every different field. The discussion meanders through the strategies involved in enhancing holistic skills especially among Engineering Students. The developmental stage takes a major track called Language. Though it is powerful to satisfy the system of acquisition, it needs an aid to accomplish a task. In such a case, the researcher incorporates the area of Literature as an aid. So, the interconnection of Language and Literature causes an impact among the target community. As a result, there will be an effective outcome where students can communicate and reflect, and can also enrich the integrated skills. The conception of 'Language through Literature' takes a vital stand to deepen Holistic skills by means of K-W-L technique.

Keywords— Effective outcome, Language through Literature, KWL technique, Holistic skill, Engineering students.

JEET Category—Practice paper

I. INTRODUCTION

Every individual holds an ability to cultivate both external and internal values, when they are introduced to natural world where they interact with social, emotional and physical factors. As this discussion targets first-year Engineering students, it aims to introduce holistic skills and constructs a good language competence. Since students are admitted on merit basis, there are different ability group

wherein, some students come from the background medium of English and some may be from vernacular medium. So, its visible to observe a kind of mixed community where some students can fluently communicate and some who found English difficult. But when they are interconnected to one particular medium or society, there is a definite need for an equal progress. On implementing certain techniques to make students explore natural world, each one of them could find meaning and purpose of being an individual, and also, they develop good language skills where it helps them to carry their future in a confident way. So, to incorporate these intentions, teachers need quality material to fulfill the point of anticipated outcome. As Literature being a better source, it has the calibre to reinforce Language, Cognitive and Social emotional adroitness. The paper shows the usage of literature in Engineering classrooms can motivate students to have a wide thinking on language and holistic arts. This can appeal to students only if teacher chooses a specific text that can help the process of enhancing skills and the outcome of these overall ideas is executed through K-W-L chart. Students are imposed to their major courses now-a-days where they find minimum time to reflect on what they have around them apart from scientific concepts. So, to create an integral development among these students, the curriculum should incorporate literature, art and value-based teachings. It is universally acknowledged that literature has a prominent association with life.

The major motive of teaching literature in Engineering classroom is, to hone creativity in language and imagination, where it enriches both the value-based growth and personal skills. In general, Engineering students encounter technological and scientific situations that are rich in technical information and they often run across two obstacles; one is the language barrier, the other is the content barrier. Understanding it would be more difficult as a result. So, the trainers or educators in Engineering colleges carry a target to provide the students the ability to think critically, independently, and intensely for their entire life. Practicing English is an inevitable process where it is the most often used language in international communication.

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English is one of the languages used by individuals to communicate in modern society. Nehemiah (2011), who stated that learning English as a Second Language can support individuals during the period of globalisation, because communication is necessary for each person who engages in globalisation through business, culture, employment, travel, technical information, education, practice, and knowledge. However, the new challenges that have emerged in the external areas of Engineering and Technology have produced a dire need to make the field of Engineering more contemporary. When it comes to college students, especially engineering students, they undergo various influencing parameters throughout their college life, which moulds their individual personality and this is done through a constant training to perform intellectually and to improve their progress.

There are students who find hard to connect themselves with the outer circle, but once they engage in some language practices, they eventually can come out of the wall of anxiety which helps them to form a basic layer of progress. When such students are given a task to correlate their mind with something apart from technical lectures and laboratory hours, their brain can reflect on the purpose of their 'Self'. This paper directs the readership to acquaint the importance of Literature and the methodology implied among Engineering students with an outcome description.

II. IMPORTANCE OF LITERATURE IN ENGINEERING CLASSROOM

The exceptional power of literature always illuminates the multifaceted dimensions of language and creativity. It is ideal to think of literature, as the mirror of life. Graduates of engineering learn their particular domains while interacting with the technological environment. They begin by studying the life before they enter the realm of literature. A literary based approach is a single method of honing one's interpersonal abilities in English through exploring literature and all of its extensive language acquisition, phrases, experiences, and expertise. According to educational psychologists, everything creative in the teaching-learning process keeps students' interest. Collie and Slater (1990) identified four key factors that influence the language teacher's decision to incorporate literature into the classroom. They are; priceless authentic content, cultural and linguistic enrichment, and personal engagement. In addition to these four basic justifications, other elements necessitate the use of literature as an effective teaching tool in the classroom, including universality, non-triviality, personal relevance, variety, interest, economy, suggestive power, and ambiguity.

The gap most engineering students experience amid their usual and systematic study of science and technology can be filled by literature where it paves way for a student to develop wholly. According to Obediat (1997), literature and language enables students to speak English more fluently, express themselves clearly, learn the characteristics of

modern English, understand how the English linguistic system is used for communication, see how idiomatic expressions are used, and become more proficient English speakers as well as creative, critical, and analytical learners. Literature appeals to the heart, engineering appeals to the intellect. Studying literature results in the expansion of reasoning, creation, ideas, and inventions whereas engineering and technological concepts and theories may result in intellectual development. Great literature is the result of the spontaneous overflow of human brain and how they reflect their thoughts through writings whereas the space for imagination, feelings, or sentiments in the fields of technology and engineering are rarely noticeable. Engineering students are benefited a lot from literature, because it keeps them intrigued and encourages them to think critically, and also allows them to communicate flawlessly. Beyond the mere recognition of literature, it welcomes students to actively interact with texts, to acknowledge the purpose behind the text, and to ponder the question of how external circumstances hit their existence. How does literature shape one's identity? What method is carried to elevate holistic skills? How eventually language develops? Through the utilization of KWL chart, an educator could calculate the mind of a student and how well the candidate could reflect on the text. At the same time, when students deal with this technique, they develop meta-cognitive skills where they think beyond the objectives. Also, they can refine their language which constructs them in a stronger way to deal their upcoming challenges.

III. KWL TECHNIQUE

Three fundamental ideas make up the KWL strategy: Know, Want, and Learn. Based on the notion that language learners acquire knowledge by creating meaning, Ogle initially proposed the technique in 1986. According to Ogle, some studies (Anderson, 1984; Steffenson, Joag-Dev, and Anderson, 1979; Taboada and Guthrie, 2006; etc.) concur that efficient learners relate new material to their past knowledge, redesign it, and generate their own meaning. Additionally, she stresses that the KWL technique offers a framework for understanding, wherein it can be used in all subject areas to aid students in creating meanings and purpose. It is supported by Sasson (2008) who said that K-W-L technique can assist the teachers to make students more interested in learning to read and reflect, because the students will think about what they want to know and what they have learned. Ogle (1986) has also explicated that K-W-L is an instructional technique which is used to guide students through a text which is begun by brainstorming each and every concept related to the topic. Backman (2006) indicated that K-W-L technique is a good strategy because it enabled the teachers to appraise students' background knowledge or prior ideas and interests before the lecture. It also helps instructors to evaluate the content material that were learned. The technique is also made to be utilised cooperatively by a teacher and a group of pupils. Using this technique, students begin by recalling what they already know, proceed by writing down what they want to know, and finish by stating what they have learned and have still to learn. By the end of teaching and learning process using this technique, the students not only improve their holistic skills but also their writing and speaking skill as well, since the scheme of

KWL also works efficiently in improving students' quality (Fengjuan, 2010). Ogle (1986) contends that the teacher is likely to actively involve students by utilising their past knowledge and relating it to the information that will be discovered in a text when employing this technique to teach students.

Before educating literature, the tutor directs the students to come up with as many facts as they can, on the topic at hand. The information they seek is then specified, typically in the form of a query. When students once undertake the task of filling the KWL chart, they automatically develop a thought process where both their writings and brain get collided. Eventually the process of enhancing holistic skill is also been carried where students developed life skills.

IV. METHODOLOGY

By adopting this technique, students begin by recalling what they already know, continue by writing down what they want to know, and finish by making a list of what they have learned so far and what they still need to learn. Enhancing both language and holistic skill by using KWL strategy has certain procedures. Students are provided a KWL sheet as shown in (Table I), before the text is been dealt. They can able to recollect and brush up their prior knowledge about the text while filling the first row (K-know) and in this initial stage teacher should also guide the student by giving them a brief explanation about the mechanism of KWL technique.

TABLE I
K-W-L SHEET

K - know	(What students already know)
W - want	(What students want to know)
L - learnt	(What students have learnt)

Secondly, after recollecting what they know, they are ready to work with the frontal lobe of their brain where the students arise with queries and they are expected to fill those popped up questions in second row (W- want). Here again they are allowed to point out their doubts and what idea didn't make sense to them. Finally, the target is been weighed by analysing the comments in the last row since the students are recommended to understand and reflect on what they have newly learned.

As stated by several reader experts, "understanding is the click of comprehension. The process of text comprehension has always sparked a bit of weary experience but fervent investigation within the research community makes it feel better. By its very nature, "understanding" is a phenomenon that can only be assessed, investigated, or witnessed indirectly. (Johnston, 1984; Pearson and Johnson, 1978)."

After accomplishing all the three stages, teachers could fetch an idea that how much of their expected outcome has been achieved. At the end of the session, the candidates are

welcomed to share things that correlate the concept of the text that has been taught with their life experience. When doing so, a student can obviously develop his or her social-emotional skills and when they engage in filling KWL sheet, they also develop meta-cognitive skill and language skills (Listening and Writing). At the end of implementing all the steps as shown in (Table II), students' ability can be calculated and researcher could certainly differentiate whether he or she has developed holistically.

V. TECAHING AID

Selecting a material aid is an important phase in the execution of methodology. Research often seeks to identify the most efficient teaching strategies and resources. So, when the aids are used properly, it will improve students' learning outcome. Since literature being the selected medium, it is important to choose a suitable genre and in such instance the researcher has opted for a short-story because while implementing the text, students can develop their listening and reading skills simultaneously. They also develop cognitive and speaking skills while they understand and reflect. Apart from these advantages, students can interpret the short story in every different way because it doesn't have any strict order or any literary complications. "Poe defined short story as a narrative that can be read at one sitting of from one half hour to two hours, and that is limited to 'a certain unique or single effect,' to which every detail is subordinate. This is an authentic justification of the effective use of short stories in Engineering Classroom (Abrams, 158)."

Step 1	Choose an appropriate text
Step 2	Create KWL sheet
Step 3	Guide students to fill the three rows (KWL)
Step 4	Discuss the points recorded by the students
Step 5	Analyse the data for final results

TABLE II
IMPLEMENTATION OF KWL TECHNIQUE

It also affords the competence of Engineering Students where they feel comfortable with the content and vocabularies. As (Fig.1) shows, the students are provided with a short-story titled "The Last Leaf" written by O. Henry. This text is opted for its good language, social theme and the precise ideas. When students are opened to such treatise, they definitely can redrive their mind to think in different perspectives and they develop a complete personality where they face things ardently.

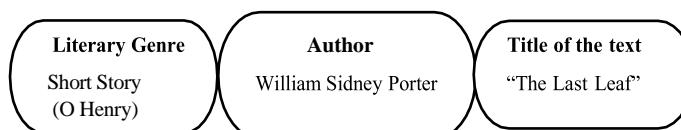


FIGURE 1

VI ACTION RESEARCH

The experiment adopted an action research which involves two strategies where the researcher could differentiate the progress by applying KWL method and could also calculate the final outcome. The researcher uses two groups of students from two different departments as the target community. Type A is the traditional mode of teaching and type B is KWL strategic mode of teaching. Type A is introduced to 25 first year students from Mechatronics Department (Control group) and, type B is applied among 25 first year students of Civil Department (Experimental group), as shown in (Table III). So, the teacher or the researcher carries two modes of teaching and here again the objective is same for both the modes. The process has been executed for three weeks. This duration has been planned by considering, the level of apprehension and cognizance about language and Literature in the field of Engineering Education, and how well the students can comprehend the ideas. First three days are for presenting the prospect of learning language through literature and developing certain skills, followed by laying out the basic aspects of KWL methodology. They are also presented with some examples and taught how to interpret a concept holistically, in the following days. In second week, the students are given some activities and trail materials to get familiarised with the nuances of literary ideologies and they are encouraged to practice KWL method. During third week, the students are introduced to a new text (O. Henry's "The Last Leaf") exceptional to sample aids and they were instructed to follow the steps, and eventually it ended up with a result. On other side, the Control group followed tasks which are used in traditional set-up. Therefore, only the teaching tool has been changed rather not the aid or the aim to check the result of KWL implementation.

VII DISCUSSION

Researcher has designed the action plan in a way to differentiate the progress area of Type A and Type B by using different methodology as shown in (Table III), wherein the control group experience an ordinary teacher-centred method in which students can see teachers as the only source of information in the classroom. It's typically a brick-and-mortar classroom set-up. Students of experimental group are been introduced to KW-L strategic mode where they think, understand and reflect. According to Philip (2010), the K-W-L technique is more suited for students who have a high level of interest, whereas the Direct Instructional Method is better suited for students who have a low level of interest.

The results of this study indicate that the two factors; Teaching approach and Learning interest, interact each other. In this situation, teaching pupils to develop critically would be better served by the K-W-L method. The platform here in

Type B is both student and teacher centred where it goes like interactive session. This categorisation follows activities related to their teaching mode as shown in (Table III). The researcher also carried an end test for both the groups where they are supposed to answer few descriptive type questions. This is because a descriptive text can help student to pick words and phrases from their cognitive power, spontaneously. So, they eventually think and frame relevant sentences which make them to improve their cognition and language skill.

A. TYPE- A

The students are engaged with the text directly where they rely on trainer's lectures and the system here happens at a predetermined pace and schedule. All students learn within the same environment and they are narrowed to adapt single methodology. In such lecture based set up, the trainer expects the students to recite and memorize the concepts. So here, the students' participation is less prioritised and they have minimum space to reflect, but they can improve their listening skill.

TABLE III
ACTION PLAN

NO. OF STUDENTS	TYPE A 25	TYPE B 25
CLASS	Mechatronics I Semester- B.E	Civil I Semester- B.E
METHOD	Traditional	KWL
MATERIAL USED (FOR TESTING)	Short story: O. Henry's "The Last Leaf"	Short story: O. Henry's "The Last Leaf"
ACTIVITIES	Worksheets and End-test	KWL sheet Reflective session Group Discussion Q/A session
TIME/ DURATION	3 Weeks (45 mins/day)	3 Weeks (45 mins/day)
AIM	To enhance holistic skills and language competence	

The session was conducted for three weeks, each day by engaging students for 45 minutes. After a day of material preparation, the researcher is ready for a formal class where she begins with a general introduction of the text and gradually moves on to teach the main content. At the end of week-2 the students are done with few trails and they are ready to attempt tasks like submitting assignments, filling worksheets and ending with a test. Therefore, the researcher can drive data from students' performance as shown in (Table IV), to analyse their progress.

TABLE IV
DATA COLLECTION

Students	Type- A (Traditional method)				Type-B (K-W-L Method)			
	Worksheet (5 Marks)	Test (20 Marks)	Total (25 Marks)	Marks in %	Worksheet (5 Marks)	Test (20 Marks)	Total (25 Marks)	Marks in %
01	3	15	18	72%	3.5	15.5	19	76%
02	4	16	20	80%	4	16	20	80%
03	3	15	18	72%	4	16	20	80%
04	4	14	18	72%	3	15	18	72%
05	4.5	14.5	19	76%	4	16	20	80%
06	4	15.5	19.5	78%	4.5	17	21.5	86%
07	4	16	20	80%	4	16.5	20.5	82%
08	3.5	16	19.5	78%	4	17	21	84%
09	4.5	15	19.5	78%	3.5	16	19.5	78%
10	3	14	17	68%	4	15	19	76%
11	3	16	19	76%	3	16.5	19.5	78%
12	3.5	13.5	17	68%	4	17	21	82%
13	4	14.5	18.5	74%	3.5	17.5	21	82%
14	3	14	17	68%	4	14	18	72%
15	4.5	16	20.5	82%	4	17	21	84%
16	3.5	13.5	17	68%	4	14	18	72%
17	4	14	18	72%	4.5	14	18.5	74%
18	3.5	15	18.5	74%	4	16	20	80%
19	3	14.5	17.5	70%	3	15	18	72%
20	4.5	15.5	20	80%	4	17	21	84%
21	3	14	17	68%	3.5	17.5	21	84%
22	3.5	16	19.5	78%	4	17	21	84%
23	4	15	19	76%	4	15.5	19.5	76%
24	3.5	13.5	17	68%	4	15	19	76%
25	3	14.5	17.5	70%	3.5	16	19.5	78%

B. TYPE-B

The students of experimental group are removed from the traditional method because the system of Teacher-oriented classroom is not the aim of KWL implementation. This mode of educating college students has a power to increase certain skills wherein the students are not directly engaged with the prescribed text rather the session began with the students' participation. The researcher made use of a day to construct materials and to plan activities. The students are made to sit in groups, as five in one group. Each member of the group is initially provided with the K-W-L sheet with a brief explanation by the researcher, about the text genre, author and the technique. With such introduction the students are provided the space to write their own insights in the respective row A (K-know) and B (W-want) of the KWL sheet. By filling those two rows, the researcher is encouraged to deal with the text in depth. After teaching, the students are asked to fill the final row (L-learned). At the end of the task, the students are welcomed to compare and

assigning worksheets, activities and end test. 'To test anything' reflect, and they can also share ideas with their peers. Similar to type A, the researcher utilises the final week for implies to look into it or put it to the test to determine its composition, value, and quality. It also assesses the knowledge, IQ, and aptitude of a particular group (Hatch & Farhady, 1982). group (Hatch & Farhady, 1982). Finally, the test sheets are collected for data analysis as shown in (Table IV).

VIII DATA RESULT

The researcher arrives at a statistical data through the worksheet and test generated among the Control group and Experimental group. It is observable that there is an elevated outcome in Type-B when compared to Type-A as shown in (Table IV). The marks obtained by Type-B group the effectiveness of implementing KWL technique to enhance holistic skill and language. As a result, the average Mean for Type-A group is 18.46 and for Type-B is 19.78. The Standard Deviations for the respective groups are 1.1306 and 1.1052.

From the overall marks obtained by Type-A and Type-B students, the Total Increasing Percentage is calculated, which is 7.1506 as shown in (Table V). Therefore, the methodology used in Type-B Classroom has increased 7.1% of students' progress level when compared to Type-A mode.

IX. FINDINGS

In gathering data, the researcher used certain stratagems; assigning worksheets, assignments, activities and test. The researcher initially allotted the students from both Type-A and Type-B with worksheet which was designed for 5 Marks. After completing the worksheet, the students from Type-B are encouraged to reflect their ideas and queries whereas students from Type-A group was administered to concentrate more on textual reading and followed by the endtest. Two groups are asked to take the test of similar pattern and questions and it was framed for 20 Marks. Therefore, the end result of the test shows that students from Type-B has developed critical skills than the students of Controlgroup. Here again it is noticeable through the data collected that the students who have got used to KWL Method has a wide thinking skill and when they start discussing among peer groups, they are definitely prone to social relationship. When it comes to regular teaching method, the students develop listening skill which when compared to Type-B method, is higher. The flow of progress in Type-A group has scattered and found to be less advantaged methodology. The degree of developed skills both in Type-A and Type-B classrooms are graphically explained (Fig.2).

TABLE V
MEAN, STANDARD DEVIATION AND TOTAL INCREASING PERCENTAGE

	Mean	SD	Overall
Type-A	18.46	1.1306	461.5
Type-B	19.78	1.1052	494.5
Total increasing percentage			7.1506%

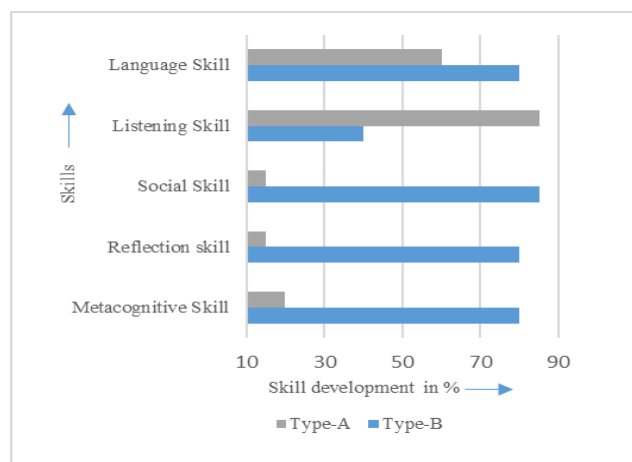


FIGURE 2
GRAPHICAL REPRESENTATION OF SKILLDEVELOPMENT
LANGUAGE SKILLS

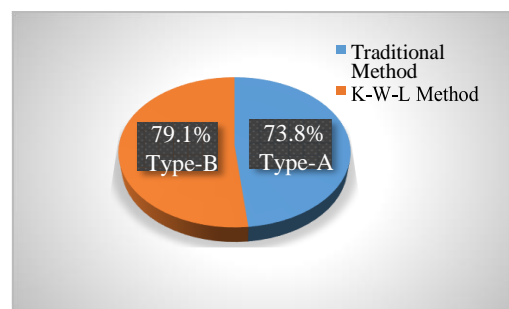


FIGURE 3
OVERALL DEVELOPMENT OF HOLISTIC SKILL AND
LANGUAGE SKILLS

X. CONCLUSION

From the data calculated, the researcher can draw the following conclusion where K-W-L technique is considered as an effective tool in enhancing holistic skills and language competence when compared to the conventional technique. Traditional method of teaching also holds its own productiveness which also develops certain abilities but in minimal percentage when compared to the other one. So, the researcher never had understated the progress of Type A method rather, she concluded the research by determining the fair percentage of both the methods, which has been the reason behind this outcome. This could be noticed on the gain based on the calculated mean of the Experimental group (Type-B) and Control group (Type-A). Thus, KWL technique has the potential to increase students' holistic skills and language skills which has been achieved through literature. The result supported the concept where KWL technique was a useful and successful method for enhancing holistic skill and language development as shown in (Fig.3). It is also noticed that through group brainstorming, the KWL set up can improve students' reflective experiences and make them more engaging with the content. Conclusively, the research proved that the experimented

methodology promoted young students to become more independent.

APPENDIX

WORKSHEET (5 Marks)

I. Write a passage of 300 words on the given topic:

- 1) If you take up the role of Berhman, what will be your decision at the end?
(or)
- 2) What if you be the narrator and how will you construct a happy ending plot?

TEST (20 Marks)

I. Answer the following questions by understanding the given passage (5 Marks)

“Twelve,” she said; and a little later, “Eleven”; and then, “Ten,” and, “Nine”; and then, “Eight,” and, “Seven,” almost together. Sue looked out the window. What was there to count? There was only the side wall of the next house, a short distance away. The wall had no window. An old, old tree grew against the wall. The cold breath of winter had already touched it. Almost all its leaves had fallen from its dark branches.

The above given passage is from O. Henry’s “The Last Leaf”

1. Which imagery in this passage tries to convey the story-line, how? (2 Marks)
 2. How does the terms “Twelve”, “Eleven”, “Ten”, make sense? Interpret your views (2 Marks)
 3. Write any three words in regard to the given passage. (The words should not be taken from the given passage) (1 Mark)
- II. Replicate the plot of “The Last Leaf” by using only ten words of your choice. (5 Marks)
- III. If you are an artist, what will be your masterpiece? Show it as an illustration and write three lines about your choice. (5 Marks)
- IV. Write ten points about your reflection which you can compare with your past or current life. (5 Marks)

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