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Journal of Research & Reviews in Social Sciences Pakistan

Journal homepage: http://journal.kinnaird.edu.pk

ASSESSMENT AS LEARNING (AAL): AN INSTRUCTIONAL APPROACH IN LEARNING SECOND LANGUAGE

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Keywords

Academic performance, Assessment as Learning (AaL), self-regulation, motivation, instructional strategy.

Abstract

This study used an experimental pre-posttest design to examine the effects of Assessment as Learning (AaL) strategy on learning essay writing skills. By employing convenience sampling technique, sixty grade nine students participated in the study. The pupils completed Argumentative Essay Assessment (AEA) to exhibit their academic performance and the Motivated Strategies for Learning Questionnaire (MSLQ) to exhibit their level of motivation towards learning. Throughout the period of seven weeks of study, both the control as well as experimental group was taught by using traditional instructional techniques; however, an additional intervention strategy of Assessment as Learning (AaL) was practiced by the experimental group. After completing seven weeks of study, both the groups were asked to complete the posttests. Independent Sample t-test was used to compare data of pre-tests and post-tests, the outcomes represented higher scores of experiment group for both the variables.

1. Introduction

Recent standards in global education system assume that students are agent of learning, as they are responsible to self-regulate their learning behaviors. Students, who are self-regulated learners, use various tools that motivate and guide their learning. Educationalists are constantly looking for instructional strategies that enhance students'

motivation and lead to higher academic performance. It is important to identify these strategies so that students may advance the skills and effective implementation of recent standards could be possible (Azatova, 2021). However, limited research has been conducted in Pakistan, with focus on instructional strategies that foster self-regulation among secondary students (Hinduja *et al.,* 2020). Incorporating these self-regulating strategies, students set goals, actively inquire about information needed to achieve their goals and get expertise over tasks assigned to classrooms. One potential strategy that reinforces self-regulation is the Assessment as Learning (AaL) practice. This study explored whether AaL practice led to higher academic performance and enhanced students' motivation in learning Second language (L2) so that instructional strategy could be identified to develop students as self-regulating agent of learning. With the increasing importance of learning English language, this research study investigated the effects of Assessment as Learning (AaL) on academic performance and motivation of ninth graders. This intervention would call for teachers to modify their classroom traditional practices and devise interventions which focus on key elements of self-regulation. The problem addressed by this study is due to a gap in prior research in exploring the effects of instructional strategies to encourage secondary students' especially female students towards self-regulation (Hinduja *et al.,* 2020) and the effects of these strategies on motivation and academic performance. Based on the work of Lee and Mak (2014), with the intervention of AaL strategy, students first clarified their learning goals, and then wrote assignments. After this, they self-assessed their work and provided comments. If they found answer incorrect they wrote explanation about how answer can be improved. Then students engaged in peer-assessment, the peer review informed them where they are right, where they are wrong and how this writing can be further improved. Motivation and academic performance were dependent variables in this study.

Following research questions are investigated:

RQ1: Is there a statistically significant difference between the academic performance post-test's mean scores of ninth graders ESL learners who practiced AaL and those who did not, as measured on Argumentative Essay Assessment (AEA)?

RQ2: Is there a statistically significant difference between the motivation post-test mean scores of ninth grader ESL learners who practiced AaL and those who did not, as measured on revised the MSLQ?

2. Literature Review

According to Lee and Mak (2014), there are four main AaL strategies could be practiced in language classroom. These learning strategies are discussed below:

2.1 Stage 1: Identifying learning goals

It is necessary to identify goals initially, for example: writing a reflection diary, teacher informs students, how an effective reflection

diary can be written. Teachers spend time with students, telling them that they should write relevant information in paragraphs, events should be sequenced in chronological order, ending with some kind of reflection, accurate use of tenses and vocabulary. Teachers assess students' knowledge through rubrics by evaluating their diaries. Teachers provide one-to-one or group instructions so that goals should be clarified, which would further help in writing task and enhance metacognition awareness regarding writing task. Teaching instructions target to help students' construction of metacognitive awareness about task, strategies to understand task, task-related strategies (such as reading books, organizing work, writing paragraphs), skills for performing strategies and plan for self-monitoring and effective use of feedback. Effective instructions are essential for self-regulation and task completion (Butler &Winne, 1995; Graham *et al.,* 2015). After understanding requirement of course, students analyze task demands; they receive internal cues to understand what is required. This practice engages them in selecting and adopting different learning strategies in order to achieve better output (Zimmerman & Bandura, 1994).

2.2 Stage 2: Feedback

Feedback must be clear, and aligned with expected learning goals and success criteria which were earlier explained to students. Rubric-based feedback forms can be useful in providing descriptive feedback linked with learning goals. Graham *et al.* (2015) found that feedback enhanced students' high-quality writing performance. Teachers must not always focus on students' weaknesses but are required to motivate students by identifying their strength, and students should be given chances to act on tutor's feedback and guidance to improve their work in subsequent stages. As for writing concerned, multiple-drafting is authentic where students frequently get tutor's feedback and rewrite their drafts (Sarwanti, 2015). It is important to note that feedback is constructive when it would be manageable for learners. Feedback should be as per need, and must not overwhelm students. According to Kunnan and Jang (2009), cognitive feedback can confirm students' understanding which is compatible with instructional goals, adjoin missing knowledge to learners' prior knowledge, replace errors, tune the students' understanding with strong arguments and restructure prior understanding inconsistent with new learning. In addition to improving knowledge, cognitive feedback targets on strategies that could expand learners' approaches towards new learning and supporting their cognitive process. There are different delivery modes of feedback: oral, direct or corrective, indirect or facilitative, verbal or symbolic, descriptive or evaluative. Oral feedback motivates students' participation by drawing from students' prior knowledge and developing new on it, is associated with effective teaching (Berliner, 1985; Richards & Nunan, 1990). Teachers' feedback in term of writing may be direct or corrective by marking errors and telling correct form or may be indirect

by using whether or not set of linguistic error codes (Bitchener *et al.,* 2005). Teachers hope that their comment will help students to correct by their own. However, Ferris (2003) argues that teachers' indirect feedback or feedback in question form, fails to get desired outcome. Although several researchers have proved that indirect feedback is supportive in L2 writing (Lalande, 1982). Bitchener *et al.* (2005) suggests that feedback is not effective until required linguistic error categories are not suggested to learners on the basis of individual differences. In this way learning tasks should be explained to learners in response to feedback on different linguistic features (Kunnan & Jang, 2009). Besides, feedback can be descriptive and evaluative in nature. Descriptive feedback provides clear and detailed information about current progress and aims to inform up-coming learning goals. While evaluative feedback is summative rely on examiner, such as 'good, excellent, and superb'. Feedback is also given in the form of tangible objects on final drafts (such as stickers or smiley faces). Evaluative and tangible feedback can be detrimental to learning, because they heavily rely on extrinsic motivation (Black & William, 1998; Chappuis & Stiggins, 2002). Outcome feedback just only informs whether students are correct or incorrect and gives minimal knowledge to learners about how should be done to improve (Butler & Winne, 1995). In contrast to this, cognitive feedback provides descriptive knowledge about cues to improve task performance (Balzer & Doherty 1989; Butler &Winne, 1995). Therefore, it is necessary that tasks should be well-organized and capable to gather all the traces of learners' cognitive process. Cognitive feedback can be generated internally (by self) or externally (by teachers). Internal feedback is generated by monitoring ones' progress; it may reflect learners' beliefs about a task. By understanding external feedback learner can reduce learning gaps about their own perception of learning and achievement, which support self-regulated learning (Butler & Winne, 1995). Cognitive feedback provides descriptive information by referring to learners' actual cognitive processes hence enabling learners to engage in self-regulated learning.

2.3 Stage 3: Forming learning community

The evolving literature on formative assessment has recommended implications of self and peer assessment (Oxford, 2016; Ozan & Kincal, 2018). Formative assessment aims at employing relevant activities to provide descriptive feedback to foster learners' motivation, learning and performance (Black &William 1998). Furthermore, self-assessment is considered a valuable skill in formative assessment (Dann, 2014). Besides, (Black & William 1998; 2018) agree that self-assessment is unavoidable to implement feedback effectively and improve learning. Self-assessment is a composite of three components, self-monitoring, self-judgment and the implication of correct instructions and adopting strategies to enhance further learning. Self-monitoring skill is essential for potential self-assessment, as it directs learners' focus

toward behaviour and thinking (Schunk, 2012). Afterward, learners pay purposeful attention towards their activities, which are related to set goals. Self-judgment which is the second component of self-assessment, involves judging one's progress towards required and targeted performance. This give answers to questions, what they know and what they still need to know. The set standards and criteria allowing useful evaluations. If criteria are challenging, quality learning increases, learners who skillfully practice self-evaluation, can persist on difficult task (Kitsantas *et al.,* 2017). Third important step is to choose learning strategies that could improve errors and misconceptions. At this stage students are required support and cognitive feedback from teachers that will promote further learning. Once students understand descriptive feedback, they restart self-monitoring (McMillan & Hearn, 2008). This active engagement of learners increases their performance (Oga-Baldwin *et al.,* 2017).

2.4 Stage 4: Sense of ownership

Students should be encouraged to take ownership of their work such as: students keep learning logs and reflective journals, which engage students in a continuous self-monitoring process to keep their attention towards achieving goals. The learning log can be possibly used for particular language skills such as writing or reading skills. Documentation of Goals, self-evaluated strength and weaknesses, asked metacognitive questions, noted reflections and examined goals for improvement, can be done by students in a learning log (Lee & Mak, 2014).In alternative way, students can write reflective journals, where such information can be included such as, things I have learnt in this unit about writing are: I must understand text type and purpose of writing; I ought to follow text structure in writing, taught by teacher; I should guess the meanings before taking help from dictionary. Students can also document notes such as: I am able to comprehend reading text without looking at the meanings of all difficult words; I want to improve such as I need to organize my work better in writing (Lee & Mak, 2014). Additionally, students engage in self-assessment, by which they take charge of their learning, take steps to change learning goals and improve their learning. Examples of such learning and assessments are portfolio self-assessment. Lam (2013) suggested that students can assemble their work in to portfolio, reflect on their best written pieces (e.g. things make them better/best; goals they set; work done well or less well; work done to resolve problem; further goals or strategies set for future learning). By implementing the above practices, learners become able to showcase their learning progress and conference with others, such as peer, parents and teachers. They can acknowledge and celebrate their progress by documenting their work, resulting increase students' motivation (Lee & Mak, 2014).

2.5 Assessment as Learning (AaL) and Student Performance:

2.5.1. Socio-Cultural Theory

Vygotsky (1978), proposed that child learns in two stages; first on social level, and then, on individual level, among the people (inter-psychological) and later inside the child (intra-psychological). Three major themes were declared; Zone of Proximal development (ZPD), More Knowledgeable Others (MKO) and Social interactions. Zone of Proximal development (ZPD) with scaffolding mechanism supports in classroom learning and assessment (Shepard, 2001). There are two levels in the zone of proximal development (ZPD), actual development level and potential development level. On actual development level, learners perform tasks individually and, on potential development level, learners perform with help of more competent individual. Scaffolding is mechanism helping learners successfully perform with their ZPD. Vygotsky suggests that guidance and help provided in the area of zone of proximal development would equip child with skills and support child to develop higher mental functions. In this regard, teachers' facilitation, more capable peers and diagnostic feedback support students in developing higher mental functions (Lee & Mak, 2014). Teachers are more knowledgeable persons. The teacher's modeling of inspiration, high spirit, competence can boost self-confidence of the learners, addition to this, and peer's sense of faithfulness and responsibility to each other keep students motivated and engaged in task. Third main theme of Vygotsky Socio-cultural theory is "Social Interaction". Social interaction occurs with the use of language. While assessment, the language supports in both leading and following the assessor's thinking, as told by Vygotsky (1978). In AaL teachers play role in mediating (by means of language) the curriculum goals, learners' engagement in effective way, and enable students to become self-agent of their learning (Lee & Mak, 2014).

2.5.2. Self-Regulated Learning Theory

With application of self-regulation, the students provide themselves with internal guidance, they engage in setting self-learning goals, take steps to execute goals with the help of effective learning strategies, after this procedure they start monitoring their growth, at final point they assess the output of their learning (Kistner *et al.,* 2010). Knowledge of metacognitive skills can be promoted by encouraging self-regulated learning. SRL increases students' awareness of their learning processes, enable students to ponder on their needs and overcome problems using relevant metacognitive strategies (Butler &Winne, 1995; Hattie &Timperley, 2007). Ardasheva *et al.* (2017) noted that instructions play a pivotal role in metacognitive awareness and informing students about their critical role which leads to increase the use of strategies and improved academic performance. While understanding their role in learning and making decisions, students employed meta-cognitive strategies, which made them capable to become

self-directed and more reflective about their performance (Schraw& Gutierrez, 2015). By providing structured instruction, teachers can not only encourage learners' self-regulation by elicit teaching, but they can also promote the use of meta-cognition.

Hypothesis 1: Assessment as learning (AaL) has a significant positive impact on students' academic performance.

2.6 Assessment as Learning (AaL) and Students' Motivation:

Paris and Newman (1990) suggest the models of self-regulated learning (SRL) are drawn on motivational and cognitive aspects of research to show students' behaviour for making goals, applying strategies for the execution of their goals. There are two models of SRL that are Component and Process models (Wirth & Leutner, 2008) and Boekaerts (1999) added component models of SRL as the coating of adjacent components embedding metacognition and motivation as the components of self-regulation. These components are derived from three schools of thoughts (1) based on learning styles (2) based on regulation style (3) based on theories of self with the special focus on goals. For the process model Kistner *et al.* (2010) added as the series of events forming an exemplary process of SRL as the pre-requisition for learners and the process model emphasizes on reflection of work before, attention towards present work and output of future. These phases can be categorized as foresight, self-reflection and actions or volition control (Zimmerman, 2000). Besides, cyclic model comprises of four interrelated processes of self-regulated learning is suggested by Zimmerman *et al.(*1996) the cycle starts with (1) self-evaluation and monitoring (2) setting goals and planning for strategies (3) execution of strategies and monitoring (4) outcome evaluating. During the first stage of self-evaluation and monitoring, students evaluated their own strength related to learning assignment; at second stage, students start making their goals and plan for related learning strategies; at third stage students used planned strategies and monitored their usefulness; finally, they evaluated the results of applied strategies. In this research study, the Assessment as Learning (AaL) process fully embraced the models of self-regulation and self-regulation has significant role in generating self-perceptions which causes motivation (Zimmerman & Schunk, 1989).

Hypothesis 2: Assessment as Learning (AaL) has a significant positive impact on students 'motivation.

3. Method

By convenience sampling methodology (N=60) ninth graders from two intact classrooms in secondary school of South Karachi participated in the study. Researchers along with school teachers coached students of either control group (n=30) or the intervention group (n=30). To check homogeneity or preexisting differences, pretest was used (Campbell & Stanley, 1963). Students were provided with Argumentative Essay Assessment (AEA) in pretest and posttest

to measure academic performance. Students were also administered a revised MSLQ in pretest and posttest to measure motivation. Pre-tests based on academic performance and on motivation were administered to both the control and intervention groups before commencement of the study. Following approximately seven weeks of instructions, at the conclusion of the topics of the study, students of both groups were administered posttests. Then statistical analyses were conducted on all assessments.

3.1. Instrumentation

3.1.1 Argumentative Essay Assessment (AEA)

To collect data, teachers used instruments, which measured level of motivation and academic performance. Argumentative Essay Assessment determined academic performance. Students' self-report survey measured the level of motivation. Pretest and posttest were administered. The English teacher allocated scores, based on scoring rubric. Argumentative Essay rubric was aligned with learning standards to assess performance in Argumentative Essay writing. Criteria of assessment are shown in table 1 below.

Table 1: Selected criteria for Argumentative Essay Assessment

CRITERIA	Total Marks
Task fulfilment (Essay length and intellectual maturity)	4
Organisation	4
Introduction	4
Evidence	4
Use of language with grammatically accurate	4
Write conclusion and provide suggestion	4
TOTAL	24

3.1.2 Motivated Strategies for Learning Questionnaire (MSLQ)

MSLQ was revised by (Liu *et al.,* 2012) for junior secondary students in an Asian context. Revised MSLQ is a7-point Likert scale 1 (not true for me) to 7 (very true for me). There are 5 subscales (learning strategies 10 items, intrinsic goal orientation 5 items, 6 items for self-efficacy, test anxiety 4 and lack of self-regulation 3 items in total 28 items). The study adapted the revised MSLQ. Table 2 shows a description of instruments.

Table 2: Instruments Descriptions

	Argumentative Essay Assessment (AEA)	Revised MSLQ
Description	Teacher identified topics of assessment on learning targets.	Self-report questionnaire for students
Purpose	For measuring students' understanding and application of Argumentative Essay learning objective.	To measure motivational orientations of students' and use of different strategies in English language Class
Variable measured	Academic Performance	Motivation
Assessment format	Essay type	Likert scale type
Reliability	Cronbach's α = .95	Cronbach's α = .626
Validity	Reviewed by experts	Prior Research

3.2. Time Horizon

To select a time horizon for research, it depends upon the decision of the researcher, whether the collection of data would be in one snapshot or series of snapshots. A snapshot time horizon is called cross-sectional research, while a series of snapshots or a diary style is called longitudinal research (Saunders *et al.,* 2009). This research study has cross-sectional qualities, since the data were gathered at specific times). Data is collected earlier in the form of pre-tests and after treatment, post-tests was administered.

3.3. Sample Size:

With convenience sampling technique, the sample size is 60 female students of class 9. All the students aged 14-15 years.

3.4. Pilot testing of MSLQ

Two schools were identified for pilot testing, one Government Secondary and other Higher Secondary School situated in Sadder area of District South Karachi. After getting formal permission, to obtain data for pilot study 35 MSLQ were distributed in each School. All 70 questionnaires were returned but 10 were rejected as they were incomplete.

3.5. Reliability test of the MSLQ through Pilot study

Table 3 below represent the value of Cronbach Alpha for the complete MSLQ. Since the Cronbach alpha in the table is 0.60, the reliability was good. Overall reliability is illustrated in table 7 below.

Table 3: Overall reliability of MSLQ.

Cronbach's Alpha	No. of Items
0.626	24

The results of reliability inferred that all of the 24 items can be included in MSLQ and used in this research study. Reliability for each scale is illustrated in table 4 below.

Table 4: Reliability of each scale/Subscale

Sr No.	Cronbach's Alpha	No. of Items
1	.520	10
2	.520	6
3	.570	5
4	.850	3

3.6. Research process

The following figures is the graphical representation of research process caried out in the experimental group.

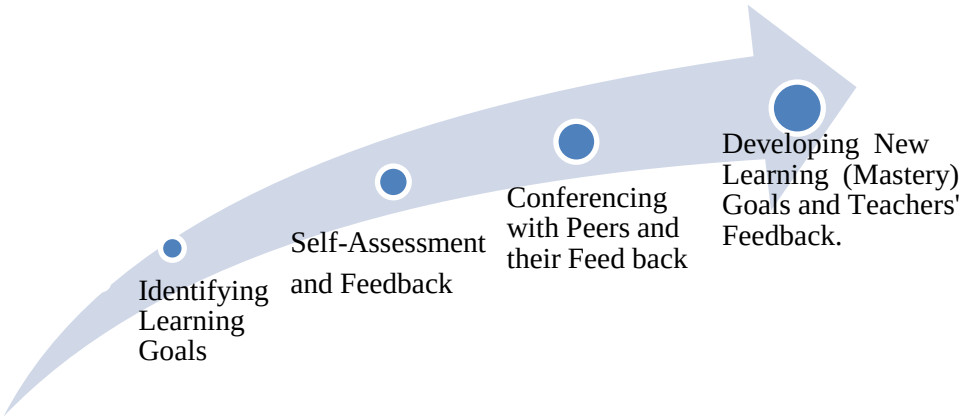

Figure 1 The writing process in intervention group.

Figure 1. Illustrates the process of how students went through stages while practicing AaL in intervention.

4. Results

SPSS software was employed for all descriptive and inferential analysis. Results are shown below in tables 5 and 6.

Table 5: Central tendency and Variability of Dependent Variable Academic Performance (N=60).

	Pretest				Posttest			
Groups	*M*	*SD*	*Mdn*	*Range*	*M*	*SD*	*Mdn*	*Range*
Control	8.63	8.61	2.26	8.50 (n=30)	8.0	10.9	3.5	11.0	12.0
Intervention	8.46	2.19	8.0	8.0 (n=30)		14.0	2.8	14.0	10.0

Note. *M*=Mean; SD=Standard Deviation; Mdn=Median

Table 6: Central tendency and Variability for Revised MSLQ (N=60).

	Pretest				Posttest			
Group	*M*	*SD*	*Mdn*	*Range*	*M*	*SD*	*Mdn*	*Range*
Control (n=30)	14.59	1.48	14.8	5.971	4.77	1.30	15.03	6.03
Intervention (n=30)	14.7	1.71	14.98	7.42	16.27	1.29	16.5	4.67

Note. *M*=Mean; SD=Standard Deviation; Mdn=Median

4.1 Hypothesis testing

Summary of the tested hypotheses is provided in Table 7.

Table 7: Summary of hypotheses and results

Hypothesis	Assertion	Statistical- Test	Sig value (p-value)	Decision
H1	There is a significant difference between the academic performance post-test mean scores of ninth grade students who participated in experimental group and those who did not.	Independent sample t-test	< .001	Accept
H2	There is a significant difference between the motivation scores (in post-test) of students who participated in experimental group and those who did not.	Independent Sample t-test	< .001	Accept

4.2. Conclusions Related to Research Question 1

There was a statistically significant difference between the academic performance posttest mean scores of ninth graders who practiced Assessment as Learning (AaL) and those who did not. As a result, analyses provided evidence to accept Hypothesis 1. A pair wise comparison illustrated that significant differences between the intervention group and control group occurred.

4.3. Conclusion Related to Research Question 2

There was a statistically significant difference between the motivation posttest mean scores of ninth graders who practiced Assessment as Learning (AaL) and those who did not. In this regard, analysis provided support to Hypothesis 2.

5. Discussion

This study supported the significant impact of Assessment as Learning (AaL) practice on academic performance. While participating in the intervention, students were clarified learning goals and activities set by teachers, later they were engaged in self and peer assessment. Results indicated that as the ninth graders practiced Assessment as Learning (AaL), they were capable of examining their own strengths and weaknesses and setting up their improvement goals. These results are consistent

with previous studies done on elementary level, secondary level and, higher secondary level (Clift, 2015; Schmidt *et al.,* 2017; Teng, & Zhang, 2017). These results provide additional support to the assertion that although young students can self-assess accurately (Cohen, 2014; Paris & Newman, 1990) and calibrate their learning successfully (Lee & Mak, 2014). In addition to this, these results support the conclusion of Guthrie's (1983) which stated that when students would become conscious of their own learning process, then they would be able to diagnose needs and mistakes. Brophy (2010) stated that motivation engages individual in activities that are worthwhile and authentic. Further, Palmer (2005) added that motivation activate and maintain learning behaviours. The Assessment as Learning (AaL) practice increased students' motivation as measured on the revised MSLQ, and this may be the result of task accomplishment. Kitsantas *et al.* (2017) found the use of elementary students practiced self-regulation predicted higher achievement. Cleary *et al.* (2017) found self-regulation helped increase the academic performance of middle school students in the mathematic subject. This proposed study expands these results to ESL learners. These positive results support the evidence of Eker (2014) that students can effectively monitor their own progress and confirm if they understood the subject matter or not, and could be able to select and apply learning strategies suitable for time as well as place, hence regulating meta-cognition. This study supports the evidence that metacognitive skills can be taught, as Cubukcu's (2009) results that teachers play a pivotal role to ensure students are benefitted from self-regulated learning. Teaching Assessment as Learning (AaL) explicitly in this study sustains Paris and Paris (2001) academic achievement theory and Vygotskian socio-cultural theory that how children can be helped by other people to learn tricks for regulating ones' learning and behaviour. These results indicate that by practicing assessment activities, secondary school students are able to reflect on their leaning and learning needs correctly and raise their motivation level and academic performance. The use of Assessment as Learning (AaL) resulted higher levels of motivation and academic performance. These findings provide justification in favour of the inclusion of students' using AaL into regular instructions for improving academic performance and enhance levels of motivation.

5.1. Contribution of the Current Research

The results of this study have theoretical contribution as well as practical implication for academic practices. Furthermore, the research provides practical implications for teachers, learners and other educational stakeholders.

5.2. Contribution to the Academic Practices

Current research entirely supports AaL practice by suggesting an instructional strategy that can be used by teachers to modify classroom practices and promote self-regulated learning behaviour among students. This study's results present statistical evidence that participants who

practicing Assessment as Learning (AaL) achieve higher both academically and motivationally. Assessment as Learning (AaL) strategy maximizes self-regulated learning process in a systematic and logical manner for students at formal operational stage of cognitive development, therefore should be a practical part of every secondary level educational institutions' instructional programs.

6. Recommendations

This study's results have practical implications and recommendations for students, their educators and all other stakeholders serving in the education field. The results of Research Question 1 concerning to academic performance and Research Question 2 concerning with motivation provide support to introduce Assessment as Learning (AaL) in to teaching instructional skills. Grounded by the results of this current research study, participation of students in Assessment as Learning (AaL) indicated an improvement in English as Second Language (ESL) writing skills and motivation as compared to those students who did not take part. These findings add to the rising evidence that learners' performance and motivation is positively affected by self-regulated learning behaviours, and help in developing students as agents of learning.

6.1 Recommendations for the Teachers

This research study has recommendation for educators/teachers. As a recent trend towards students' accountability and the requirement of useful instructional strategies, the proposed research study gives statistical evidence of effective instructional strategies. Therefore, it is essential for educators to recognize that Assessment as Learning (AaL) helps students to regulate their self-learning behaviour and boost academic performance and motivation. This experimental research supports teachers to bring change in their classrooms to enhance self-regulated learning. The target of this intervention's design was practice of key elements of self-regulation for secondary students. While looking at results of this study, it is obvious that teachers are supposed to give explicit instructions to exercise of self-regulating strategies, by means of Assessment as Learning (AaL) strategy. Such instructional practice should be taken standard in teachers' repertoire. This measured decree called for implications for other stakeholders in education field. As ultimate objective of schools is creating life-long learners, to achieve objective this undertaking can be useful. For producing life-long learners, students must be equipped with skills of self-regulating. The stakeholders should provide time to both students and teachers to master these skills. Time is considered a precious resource in today's educational setting, with its effective utilization teachers can support students learning.

6.2. Recommendations for the Policymakers

Policy makers are required to apportion time to both teachers and students to practice these instructions highlighted within the study as well as build up supplementary intervention that

mirrors Assessment as Learning (AaL). This time would be spent well, as the findings of the studies suggest that students, who practice Assessment as Learning (AaL), possess capability which influences their learning plus motivation and performance.

6.3 Recommendations for the Students

This study shows that secondary students who participated in Assessment as Learning (AaL) scored higher than those who did not participate. This shows a practical implication for students. The practice of Assessment as Learning (AaL) by using templates can guide students in developing Self-regulated learning behaviours which lead to efficient self-management of one's learning. Self/Peer assessment templates can be used by students as a concrete supporting pattern to follow as they grow their self-learning behaviours. Such templates assist students to independently practice self-regulated learning skills. With their further progress and maturity, students could be able to modify and adjust their assessment to widen and polish their skill set.

6.4 Recommendations for the future researchers

It is important to continue the future investigation concerning the effectiveness of Assessment as Learning (AaL) to support secondary students to develop their self-regulated learning behaviours. Such investigation can work deeply on motivation, its subscales, and the elements of Assessment as Learning independently such as self-assessment, peer-learning and goal setting. As specified in the theoretical contribution section, the clearer understanding of the impact of Assessment as Learning (AaL) on self-influences that have an effect on combination of both motivation and academic performance is required. Hence, future research might be designed to work on these self-influences and directly measure the impact of Assessment as Learning (AaL) on them. Furthermore, due to limited time, the practice of AaL was limited for only one type of essay writing that was "Argumentative Essay" in this study. Probably, repeated use of Assessment as Learning (AaL) for different types of essay writing in second language (L2), may have given a more significant impact on motivation score. Therefore, future studies, with repeated practice of AaL with prolonged time spent amid of pretest and posttest motivation's measures are required. Besides, it is also recommended that multiple constructs of motivation be examined by future studies. In current study, it was assumed that coaching self-regulated behaviours, would have led to higher academic performance and motivation, where, academic performance and motivation were considered two separate variables. Future studies can also examine whether and how motivation is interrelated with academic performance. Though, it is needed to gain deeper understanding of the connection existing between such behaviours as wells interconnection of academic performance and motivation. Developing students truly agents of their learning and their self-regulated learning behaviour can be acquired by receiving direct

instructions, in spite of this, it is unclear whether these behaviours lead high academic performance with combination of high level of motivation. In this regard, these following two questions can be addressed by future studies: (1) Whether motivation develop self-regulated behaviours which cause improved academic performance or can behaviours cause increase in academic performance as well as motivation? and, (2) Do students possess high motivation, but lack in self-regulation achieve high academically? This research study studied motivation, as only variable which consisted of two scales: Motivation and Learning Strategies. However, these two scales have various sub scales, and these different subscales of Motivation are linked to performance directly or indirectly (Pintrich & DeGroot, 1990; Rotgans & Schmidt, 2012; Wolters & Pintrich, 1998). In this current study effect of AaL was not investigated on each subscale. Thus, it would be appropriate for future research to find the impact of AaL on each subscale. In this study, AaL was viewed as independent variable. AaL is an umbrella term, combination of separate activities such as self-assessment, peer-assessment and goal setting. The study united these activities into one intervention. The results showed that students who practices this united activity gained higher scores in both academic performance and motivation level. Even though the results are appropriate for this united activity, as this study did not plan whether self, peer and goal setting affect performance separately. Hence, future research is called for examining these combined activities of self-assessment, peer-assessment and goal setting separately.

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