

**Investigating the Impact of an IFAP (Inclusive Formative Assessment Practices)
Scheme on Students' Writing skills, Self-regulation, and Attitudes towards Learning:
Towards Sustainable Learning Development in Management Education**

Track: Learning & Knowledge

Summary: (150 words)

The present study explored the use of an Inclusive Formative Assessment Practices (IFAP) scheme with undergraduate Business students. In terms of this project, 200 students were asked to use formative peer assessment (PA) in their first semester and self-assessment (SA) in their second semester to help them improve their writing performance, self-regulation, and motivation promoting sustainable learning development (SLD) and Social Justice. Students' pre-test and post-test scores showed that the scheme improved students' writing performance. The outcomes from students' pre- and post-implementation survey revealed that it had a strong impact on students' self-regulation. Students confessed that it was challenging but they thought it certainly improved their critical thinking, and sense of personal accountability significantly. This project wishes to inform scholarly debate around management knowledge presenting an IFAP scheme that can enhance students' academic performance and motivation cater for students' diverse needs by offering peer support and promote autonomy and SLD.

Key words: inclusive formative assessment, self-regulation, management education, writing, students' attitudes, peer assessment, self-assessment, sustainable learning development, Social Justice

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Introduction

The current paper explores the use of the Inclusive Formative Assessment Practices (IFAP) scheme in Management Education (ME) as it is believed that the use of peer assessment (PA) followed by self-assessment (SA) in terms of this particular scheme can enhance undergraduate students' writing performance, self-regulation, and motivation. PA and SA are widely known as qualitative assessments of the learning process and of its final product realised based on pre-established criteria (Panadero, 2011). They both promote autonomous learning (Panadero and Alonso-Tapia, 2013), which is defined as 'self-generated thoughts, feelings, and actions that are planned and cyclically adapted to the attainment of personal goals' (Zimmerman, 2000, p. 14). As inclusive learning and assessment strategies, PA and SA allow learners to reflect on their performance taking into consideration explicitly defined assessment criteria and identify where they are in their learning journey and what they need to do to achieve their final learning goals without causing unnecessary stress to themselves or to others acknowledging their limitations and setting higher but feasible targets.

Writing is a process learned through consistent writing, assessment, and feedback (Cho and Schunn, 2010) and presupposes that students know what good writing is (Andrade, 2008). Using PA and SA allows students to detect what they need to do to improve their work (Bruce, 2001). Even though Kitsantas (2004) suggested that formative assessment methods, such as PA and SA, are valuable learning strategies that could improve students' academic achievement, attitudes and self-regulation, Andrade and Boulay (2003) report the opposite in terms of writing skills enhancement. However, they confess that this is the case when students do not have the necessary support and guidance while revising their work. The aim of sustained participation in SA and PA is allow students to detect and rectify their mistakes while they are working on their assignments (Kitsantas, 2004) and, therefore, improve their self-regulated learning skills (Panadero et al., 2016). Effective implementation of PA and SA necessitates sharing and negotiating assessment criteria before the learning process to allow students to understand their expected learning outcomes and organise their work accordingly (Panadero and Alonso-Tapia, 2013; Panadero et al., 2016).

Panadero and Alonso-Tapia (2013) explained that formative assessment practices i.e., SA and PA directly influence the two phases of Zimmerman and Moylan's (2009) cyclic model of self-regulated learning by: (1) reflecting on the task and its components, taking the assessment criteria into consideration, and making decisions about the strategies they will use to reach their goals, and (2) monitoring their work, checking their progress against the criteria and completing their assignment making all necessary adjustments. Previous research highlights the positive impact of PA and SA on writing performance (Fahimi and Rahimi, 2015; Iraj et al., 2016; Mazloomi and Khabiri, 2018). However, most of these studies have disregarded the psychological writing-related factors. Writing is a complex process which pre-supposes the effective use of various linguistic and affective variables at the same time (Kellogg, 1996). Affective variables have been disregarded in the writing literature (Han and Hiver, 2018). Moreover, since learning, teaching, and assessing are dynamic procedures (Hiver and Al-Hoorie, 2016), students' individual needs and differences and their specific learning context should be taken into consideration (Larsen-Freeman, 2016). While several researchers have explored writing autonomy and reflection (e.g., Khodadady and Khodabakhshzade, 2012; Zeki and Kuter, 2018), there is a gap in the literature regarding formative assessment and its impact on students' self-regulation (Fathi et al., 2019).

Therefore, the current study explores the impact of IFAP on undergraduate students' writing performance, self-regulation, and attitudes towards PA and SA unravelling the benefits of using these inclusive 'assessment as learning' strategies in HEI. Assessment as learning is defined as

“assessment that provides learning opportunities for students through their active engagement in seeking, interrelating and using evidence” (Yan and Boud, 2022, p. 13). While literature shows that it often enhances student learning, perceptions and self-regulation, more research is needed to explore ways in which PA and SA should be implemented in the classroom and the understandings of and attitudes towards these strategies that underpin effective and ineffective practices.

Exploring naturally occurring implementations of PA and SA in a favourable context may allow for the identification of classroom factors that may facilitate or impinge on the integrity of inclusive formative assessment implementations. A clearer understanding of how PA and SA are experienced by educators and their learners may shed light on conditions and circumstances that facilitate or obstruct improved learning and self-regulation, identifying issues that need to be addressed in lecturer preparation and development. Many learners are yet to be persuaded of the advantages of these practices, opting for more traditional educator-controlled assessments, a belief reinforced by HEI grading systems and reporting practice (Peterson and Irving, 2008). Based on the findings of this study, recommendations will be provided as to how all relevant stakeholders in HEI can use inclusive formative assessment methods effectively to support students irrespective of their background. By encouraging students to be fully involved in their learning and assessment in inclusive settings, the assessment process ultimately becomes inclusionary, and learners come to know themselves better. Thus, inclusion through PA and SA gradually enables this self-knowledge, identity, and belief in themselves and each other (Bourke and Mentis, 2013).

Research Focus, Rationale and Questions

The present study explores the use of the IFAP scheme in Management undergraduate classes (see Figure 1) to support disadvantaged students, i.e., multilingual, BAME, mature students. Recently, there has been a great emphasis on using inclusive formative assessment methods in HE. More and more educators around the globe recognise their benefits through which a considerable amount of responsibility for assessment shifts from the instructor to the students (Boud and Brew, 1995). PA and SA increase student accountability for their own learning, reflection, and strategic management of their learning (Lee, 2006). However, educators question the feasibility of implementing PA and SA due to student immaturity and lack of proficiency to handle the relevant tasks (Boud, 1989). The classroom has moved from an instructor-centered place to a more learner-centered (Catalano and Catalano, 1997), student-led (Merriam, 2001) learning environment. The current study will offer recommendations to educators in Management schools to assist them in their effort to help all students achieve their academic goals improving their learning experience by fostering autonomy and enjoyment of learning.

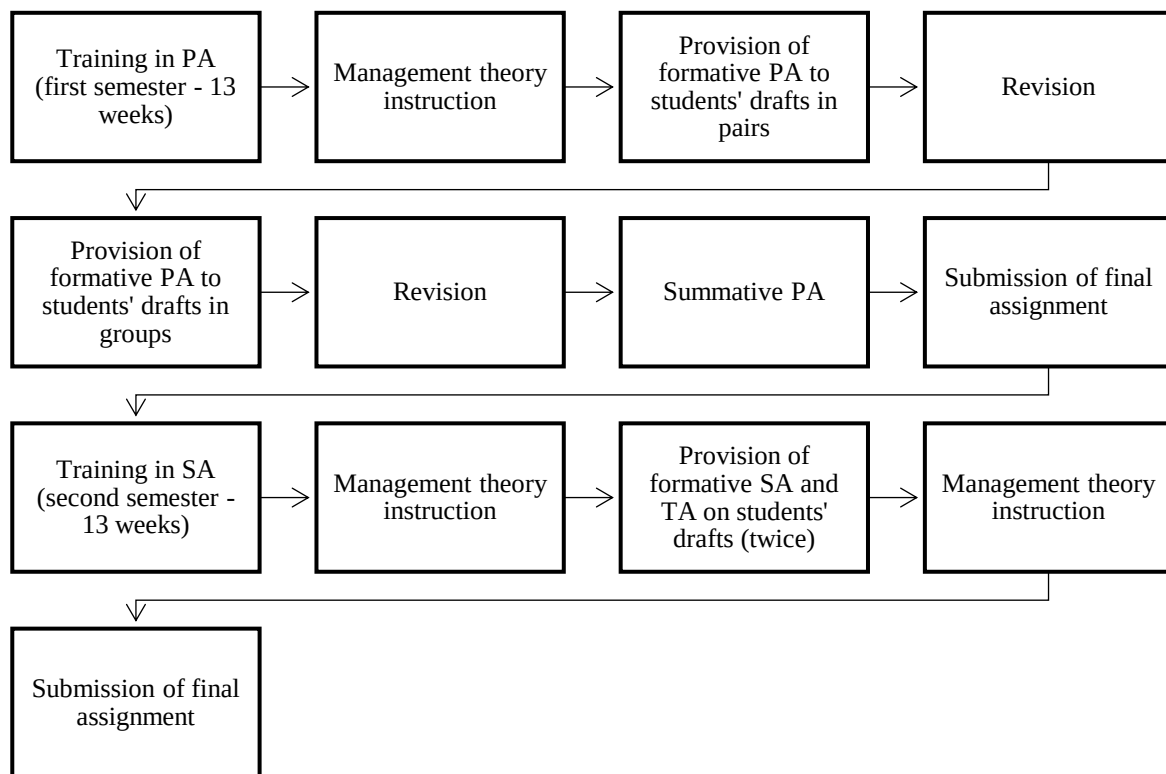


Figure 1. IFAP scheme

Research Methods

To examine the impact of the IFAP scheme on undergraduate first-year Management students' writing skills, motivation, and self-regulation, 200 learners at a Business School in the UK were involved in this long-term study for 2 academic semesters. Students received training and then used PA for one academic semester and provided feedback to their peers in pairs and then in groups and then SA for one more semester taking part in carefully structured tasks with the support of their lecturer as this combination is beneficial according to previous research (Andrade, 2019). Students were informed about the study and provided their consent. The researcher ensured the confidentiality and anonymity for all participants who were volunteers. The IFAP project wished to explore the influence of IFAP on student writing skills, motivation and the development of professional skills such as self-management and team work to identify ways in which educators can enhance students' professional skills and increase their enjoyment of learning simultaneously (Topping, 2010). The main aim was to empower all students, including multilingual and low-achieving students, to achieve their full potential and ensure that their voices can be heard.

The researcher collected pre- and post-tests and explored any improvement in students' performance by comparing marks. The researcher also explored students' attitudes during the implementation using anonymous feedback provided by students via Mentimeter and focus group discussions. A writing self-regulation survey (SRS) adapted from Tseng et al. (2006) was administered to students to measure their level of self-regulation in writing before and after the implementation. The SRS consisted of items which intended to measure the strategic effort of undergraduate writers to organize and manage their writing-specific goals and learning

processes. It used a 6-point Likert scale ranging from 1 (strongly disagree) to 6 (strongly agree). The internal consistency of the questionnaire, as estimated by Cronbach's Alpha formula, was 0.76 in the present study. The aim of the current study was to address the following research questions:

- (1) What are undergraduate students' perceptions of the benefits and challenges of the use of the IFAP scheme in Management Education?
- (2) What is the impact of the IFAP scheme on undergraduate students' writing performance?
- (3) What is the impact of the IFAP scheme on undergraduate students' motivation to learn?
- (4) What is the impact of the IFAP scheme on undergraduate students' self-regulation?

Preliminary Analysis and Initial Results from First Phase

The researcher used the same rubric to assess all drafts of all students' assignments. 20% of students' pre-and post-tests were evaluated by a critical friend, who was an experienced lecturer, after participating in a rater calibration session which aimed to ensure raters' agreement in terms of how they perceived and applied the assessment criteria while marking students' assignments (Trace et al., 2017). Inter-rater consistency was 94%. In this way, the researcher ensured the reliability of her marks. Descriptive statistics and a paired t-test were used to explore the impact of IFAP on students' writing performance. The aim was to identify the areas of improvement of learners' writing due to the use of the IFAP scheme.

To explore the impact of SA on students' writing self-regulation, the researcher collected all completed self-regulation questionnaires before and after the implementation. To analyze the self-regulation questionnaires, the frequency of the responses (ranging 1-6 for the 6 different responses to the survey) to each statement in the initial and the final questionnaires were compared using IBM SPSS Statistics software. The researcher intends to calculate the descriptive statistics for pre- versus post-implementation surveys to examine students' possible improvement in terms of self-regulation due to the intervention and then conducted a paired t-test to investigate whether there was an improvement in students' self-regulation due to the IFAP scheme which was statistically significant for each one of the questions in the survey.

Thematic analysis is being used to analyse the learners' anonymous feedback and focus group discussions (Braun, Clarke & Hayfield, 2023). The data are recursively read with frequent reference to the research questions. The lecturer/researcher and a critical friend, an experienced lecturer, created a coding scheme based on the recursive reading. The same coding scheme will be used with both sets of data. They will then code all the data collected applying the same scheme calculating the inter-coder reliability. Any possible discrepancy in terms of coding will be resolved through negotiation.

The preliminary findings indicate that the IFAP scheme had a significant effect on the improvement of students' writing performance. Cohen's d ($d=1.59$) also indicated a large effect of IFAP on students' writing achievement which confirms some previous studies (Iraji et al., 2016; Mazloomi and Khabiri, 2018). To examine the effects of the IFAP scheme on the writing self-regulation of the participants, paired-samples t-tests were conducted to trace the changes in the mean scores of the group in all 9 questions from the pre-test to post-test. There was a

statistically significant increase from the pre-test to post-test of writing self-regulation in all questions included in the self-regulation survey.

The researcher collected data from students' post-test essays, anonymous feedback, and focus group discussions. She also used her field notes and identified recurring themes which fell into two categories: perceived benefits and perceived challenges of the IFAP scheme.

Students thought that the IFAP scheme was a worthwhile experience and appreciated their lecturer's support and input. They felt accountable as they had to interact with their lecturer in terms of their grades, comments, and overall progress. They could concentrate on their own work and find new ways to resolve big and small problems and develop their planning skills. Students also detected some issues with the implementation of SA. Although they experimented with PA during the previous semester, some students were still reluctant to take full responsibility for their learning and needed more support. They reported that sometimes they did not know what else to do to improve their skills. They had tried, but they claimed they needed additional input.

Students also highlighted the fact that they felt slightly isolated when using SA after experimenting with PA. They admitted that SA was more face-saving than PA or TA and it allowed them to concentrate on their own work, but they needed more resources to develop their writing skills. They could understand the concepts, but they did not know how to apply them in their own writing. They needed guidance. Moreover, they suggested that the transition to SA should be slower so that they could feel prepared and mature enough to take control of their own learning.

To sum up, the current study unravelled how promising and simultaneously challenging the use of IFAP scheme was for undergraduate students who are frequently inexperienced in alternative assessment methods and often doubt that SA can help them become more independent and efficient as learners. Instructors' patience and support can gradually lead undergraduate students towards autonomy, self-regulation and self-efficacy which are valuable skills in the 21st century workplace.

Theoretical Contribution of the Study

New professional development materials and courses are needed that go beyond the exhortation to use SA and PA in classes. These resources need to ensure educators are aware of the theory and research base for IFAP and provide techniques that are appropriately sequenced for the skill level students have in this competence. Until educators abandon a simple approach (e.g., using simple short rating scales for effort and satisfaction), it is unlikely that PA and SA will fulfill their promise (Topping, 2003). Once lecturers have an appropriate understanding, they will need to train students in developing realistic peer and self-evaluations for the explicit purpose of guiding their own learning (Andrade and Valtcheva, 2009). Fortunately, the research evidence makes it abundantly clear that the quality of student PA and SA improves with training and that enhanced outcomes arise when there is a focus on promoting Social Justice for all students irrespective of their background (Meletiadou, 2022).

Practical Importance and Implications

- **Implications for research**

The current study comes with a handful of important limitations as it used a relatively small sample, in a specific context without a control group. Future studies should use an experimental design including a control group which may use a traditional lecturer-centred learning approach and/or another alternative assessment approach i.e., portfolios to compare their benefits for the students and their reactions during the intervention. Future studies should also examine the impact of the IFAP scheme on postgraduate students and/or even doctoral students who need support when they work rather isolated - without continuous guidance - on their PhD dissertations.

Future studies should also delve more into the effects of assessment practices as learning methods on different aspects of writing. Therefore, it is recommended that researchers target other learning-inhibiting variables, i.e., stress, to see if these variables can be intervened via the IFAP scheme. Moreover, it is suggested that samples from other learning contexts (e.g., marketing courses) be also explored to determine whether the findings obtained in this study can be generalized to other disciplines. Finally, it is suggested that the moderating effects of various learner variables i.e., age and gender should be considered in future studies.

- **Implications for practice**

It is imperative for educators to familiarize themselves with the knowledge pertaining the IFAP scheme before using it with their students. Thorough training with sufficient time provided is essential for the success of the IFAP scheme implementation at the level of practice (Andrade and Valtcheva, 2009) since students are not always familiar with it. Incorporating IFAP training into the curriculum allows learners to develop a range of professional skills necessary as they will be asked to engage in continuous professional development as employees (McDonald and Boud, 2003). Educators should continue to use the IFAP scheme in their writing courses because it enables students to become critics of their work and lifelong learners (McDonald and Boud, 2003). As students piece together the elements of writing and move through the writing process, they begin to understand, assess, and evaluate good writing, as suggested by Andrade (2008).

Globally, students and educators need preparation not only in inclusive formative assessment techniques, but also in the self-regulation and psychological theories underpinning them if students are to become effective assessors of their own learning. Nonetheless, without a supportive inclusive formative assessment policy framework, it is unlikely that pedagogically oriented assessment techniques like PA and SA will gain much traction. As long as policies place great emphasis on hard policy options, such as public examinations or testing, lip service is likely to be rendered to assessment for learning practices, including SA and PA. Additionally, certain inclusive formative assessment practices may not be viable in all classrooms. Good classroom relationships between lecturers, students, and their peers appear paramount. Without a classroom philosophy that views mistakes as an opportunity for learning and that encourages honest reflection, the IFAP scheme's accuracy is likely to be compromised. Hence, educators must think strategically about when and how to incorporate IFAP into their classroom. There are some classes where, due to classroom dynamics, the IFAP scheme may not be viable. In other scenarios, these may be best utilized later in the year only after positive relationships have been built. Future research would do well to examine how, especially less academically able students, can be supported in conducting more complex evaluations of their own work. What this study adds is a clearer understanding that, notwithstanding a supportive policy

context, educators and students require much more preparation and support to handle the complexities of the IFAP scheme.

In terms of this developmental paper, we are still in the process of analyzing our data. It is hoped that this procedure will be completed before the conference.

Discussion Point and Further Development

Based on the preliminary results of this study, the IFAP scheme should be explored more. More in-depth studies should be conducted to determine the effectiveness of using the IFAP scheme in other areas i.e., the development of presentation skills in Management Education. More research needs to be conducted on how Business School lecturers can use the IFAP scheme to enhance the learning process and help students understand how to write effectively. By using IFAP in management education, students can assess their own level of performance and achievement and improve their writing abilities (Kitsantas, 2004). These types of studies are the first phase of developing strong writing assessment programs that could be used internationally across multiple disciplines in HEI. The findings of this study cannot be generalized to other populations because the study describes a year-long implementation at one university. However, the findings can be used as a basis to compare to future writing assessment studies in undergraduate management education. Similar, yet more in depth randomized experimental design studies can be conducted comparing the findings of this study. HEI could implement an IFAP program specific to each field of study that could revolutionize writing education and promote inclusive assessment. Before HE can encourage higher-level skills in application, analysis, synthesis and evaluation, a new level of assessment needs to be developed. The use of a carefully designed and implemented IFAP scheme could be one piece to an in-depth assessment program.

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