
Hybrid Flightpath Teaching: Empowering Faculty Excellence for Students' Engagement & Satisfaction**Roger A. Martinez Jr.**

0009-0004-8304-921X, WCC Aeronautical & Technological College, Inc-Binalonan Campus, Pangasinan, Philippines.

r.martinez@wccaviation.com.ph

Abstract - In the dynamic landscape of aviation education, adopting innovative teaching methodologies is essential to enhance student engagement and satisfaction. This paper introduces the concept of "Hybrid Flightpath Teaching," a pedagogical approach that empowers aviation faculty to excel in their instructional roles. By seamlessly integrating traditional classroom instruction with modern technological tools, this approach offers a comprehensive learning experience that resonates with students' diverse learning styles and preferences. The "Hybrid Flightpath Teaching" aims to enhance faculty competency in both face-to-face and online aviation course delivery and determine the effectiveness of the Hybrid Flightpath Teaching Method in delivering the curriculum and preparing students for real-world applications in the field of aviation. Utilizing data from an evaluation conducted by Deans, Program Heads, and Faculty & Ground Instructors, the study assesses various aspects of the method's implementation, including instructor-student engagement, integration of technology, improvement in student understanding, preparation for real-world challenges, and provision of support and resources. Furthermore, this research is to design and implement a three-weeks training program for teachers, combining traditional face-to-face instruction with online modalities. The study involves thirty nine (39) students from the College of Aviation who participated in a pre-assessment before the commencement of the program. Following two weeks of teaching using the Hybrid Flightpath approach, a post-assessment was conducted to evaluate any changes in the students' knowledge and performance. Faculty members' perceptions are also examined via self-assessment and feedback. Results indicate a significant improvement in post-assessment scores for the controlled group compared to the uncontrolled group, suggesting the method enhances student understanding and performance in Flight Dispatch. Faculty members view the method positively, highlighting its potential for improving curriculum delivery. These findings underscore the importance of innovative teaching methods in aviation education and emphasize the benefits of integrating technology into the curriculum. Overall, the study concludes that the Hybrid Flightpath Teaching Method enhances curriculum delivery and prepares students for success in the aviation industry. Recommendations include continuous professional development for educators and diverse assessment strategies to optimize the method's effectiveness. Ongoing research into online teaching techniques and longitudinal studies can further enhance aviation education.

Keywords - hybrid flightpath teaching, faculty excellence student engagement, satisfaction, aviation education

Introduction

In the ever-evolving landscape of aviation education, the adoption of innovative teaching methodologies is imperative to meet the diverse needs of students and enhance their learning experiences. In our increasingly digital and interconnected world, technology has become an integral part of higher education. As universities strive to provide effective and engaging learning experiences, the integration of technology has become essential. The journey towards enhanced learning experiences is not a solitary endeavor but a collective responsibility that involves stakeholders at all levels of the education ecosystem. By embracing technology as a tool to augment and enrich the learning process, universities can empower faculty excellence and create engaging, relevant, and personalized learning experiences for all students (Amemado, 2014).

The integration of hybrid teaching methodologies in higher education has become increasingly prevalent, combining traditional face-to-face instruction with online learning components. Consequently, studies have emerged to explore various facets of hybrid teaching, including faculty development, instructional strategies, and their impact on student engagement and satisfaction. However, amidst this research landscape, there is a notable gap in understanding the challenges faced by students in hybrid learning settings.

Existing research in the field of hybrid teaching has extensively examined the role of faculty development and instructional strategies in enhancing teaching effectiveness and fostering student satisfaction. Studies such as "Barriers to Student Active Learning in Higher Education," "Use of Self-Referential (Ipsative) Feedback to Motivate and Guide Distance Learners," and "A Methodological Approach to Support Collaborative Media Creation in an E-Learning Higher Education Context" have provided insights into student-centric challenges and pedagogical frameworks to address them. However, these studies primarily focus on overcoming challenges without directly investigating the specific barriers hindering student engagement and active learning. Despite the insights provided by existing literature, the study on "Hybrid Flightpath Teaching" does not directly address the challenges hindering student engagement and active learning in hybrid teaching environments. While it emphasizes faculty development and instructional strategies, it does not delve into the specific difficulties faced by students. Consequently, there exists a gap in understanding and addressing the factors that impede student engagement within hybrid teaching. Thereby, this study aims to bridge this gap by systematically identifying and addressing the challenges faced by students in hybrid learning environments,

thereby enhancing the overall efficacy and effectiveness of hybrid teaching approaches in higher education. This paper introduces the concept of "Hybrid Flightpath Teaching," a pedagogical approach that empowers aviation faculty to excel in their instructional roles. By seamlessly integrating traditional classroom instruction with modern technological tools, this approach offers a comprehensive learning experience that resonates with students' diverse learning styles and preferences. The "Hybrid Flightpath Teaching" aims to enhance faculty competency in both face-to-face and online aviation course delivery. Furthermore, this research is to design and implement a one-month training program for teachers, combining traditional face-to-face instruction with online modalities. By embracing a blended pedagogy, utilizing technology effectively, and maintaining student-centered approaches, faculty will be better equipped to provide high-quality education, engage students, and create a seamless learning experience that prepares aspiring aviators for success in their careers. Additionally, the training aims to enhance faculty responsiveness to student inquiries and enable them to design a balanced assessment approach that fosters a positive learning experience for all students. The Hybrid Flightpath Teaching model leverages digital platforms, interactive simulations, and real-world case studies to create an immersive and interactive classroom environment. This approach not only enriches the learning process but also equips students with practical skills and industry-relevant insights. Through collaborative projects and experiential learning opportunities, students are encouraged to apply theoretical concepts to real aviation scenarios, fostering a deeper understanding and enthusiasm for the subject matter.

Materials and Methods

The effectiveness of the Hybrid Flightpath Teaching approach is evaluated through quantitative measures of student engagement, satisfaction, and academic performance. This study used the cross-sectional and descriptive research design. According to Cresswell (2014), cross-sectional research studies make a comparison of different groups at the same time. The first part includes the training for the ground instructors for three (3) weeks and to determine its effectiveness is thru evaluation of the deans and heads and the result of the assessments made by the students. The study involves thirty nine (39) students from the College of Aviation who participated in a pre-assessment before the commencement of the program and grouped as controlled and uncontrolled groups. Following two (2) weeks of teaching using the Hybrid Flightpath approach, a post-assessment was conducted to evaluate any changes in the students' knowledge and performance. For the descriptive part, the study also takes into account the self-assessment of the teachers who rated themselves as effective in delivering the curriculum through the Hybrid Flightpath Teaching approach. Furthermore, the assessment by deans and program heads aligns with the teachers' self-assessment, reinforcing the perception of their effectiveness.

Results and Discussions

Needs Assessment

The initial phase of the research entailed discerning the requirements of ground instructors pertaining to the instruction of specific subjects, as evaluated through semesterly assessments conducted by the institution. Subsequently, the study focused on faculty members of aviation department whose performance received lower ratings in both student and dean evaluations, with a particular emphasis on those responsible for teaching the flight dispatch course. There are five ground instructors included in the study who will undergo the Hybrid Flightpath Teaching Program.

The Program

Prior to determining the effectiveness of the Hybrid Flightpath Teaching Program, all instructors had undergone three weeks training and handled the controlled group while ground instructors who did not undergone training handled the uncontrolled group. The program includes the following:

Table 1. Hybrid Flightpath Teaching Program

Week	Program	Activities included
1	Program Kick-Off and Preparation	<ul style="list-style-type: none"> ✓ Conduct a kick-off meeting with all faculty who needs training and who will participate in the program and introduce the program, clarify objectives, and set expectations. to participate in the program. ✓ Coordinate logistics for the one-week company visit and immersion, including travel arrangements and schedules. ✓ Begin preparations for case studies, real-world projects, and guest lectures.
2	Company Visit and Immersion	<ul style="list-style-type: none"> ✓ Facilitate interactions with industry professionals and experts to enrich their understanding of the aviation industry.

3	Training & Collaboration	<ul style="list-style-type: none"> ✓ After the company visit, faculty members should collaborate with co-teachers/professors involved to develop case studies and real-world projects. ✓ Organize industry-specific seminars and conferences for faculty members to attend to learn about the latest developments and trends in aviation. ✓ Invite industry experts to deliver guest lectures and conduct workshops at the educational institution.
---	--------------------------	--

Assessment and Wrap Up

This section shows the gathered result to determine the effectiveness of the proposed Hybrid Flightpath Teaching Program during the first semester of the School-Year 2023-2024. The researcher provided tables for presentation, interpretation and analysis of data.

Performance of the Second Year Student Pilots in the Flight Dispatch Course

A looked at the result presented in Table 2 specifically on the performance of the second-year student pilots in the flight dispatch course after the ground instructors had undergone Hybrid Flightpath Teaching Program, the mean pre-assessment scores of the experimental group is 10.28 while on the controlled group (handled by ground instructors who did not undergo Hybrid Flightpath Teaching Training), the mean pre-assessment score is 11.28. On the other hand, the post test scores in experimental group are 28.28 and 23.74 from the controlled group having a mean difference of 18.00 between pre-assessment and post-assessment scores of experimental groups and an overall mean difference of 12.46 on the pretest and post-assessment scores of controlled group. The findings indicate a significant improvement in the performance of the experimental group, comprised of students instructed by ground instructors who underwent the Hybrid Flightpath Teaching Training, compared to the control group, which utilized the Traditional Method and was taught by instructors without such training. Consequently, this suggests that the competencies of second-year student pilots in selected Flight Dispatch lessons can be enhanced when ground instructors receive ongoing training. This training strategy, employed by the researcher, is essential due to the continual evolution of technology and operations within the aviation industry, necessitating constant adaptation to industry trends.

Table 2. Performance of the Second Year Student Pilots in the Flight Dispatch Course (Preassessment and Post assessment Result)

	N	50-Test Items		Difference
		Pretest	Posttest	
Controlled Group	39	10.28	28.28	18.00
Uncontrolled Group	39	11.28	23.74	12.46

Post-assessment results got a remarkable improvement having an increase of 18.00 and 12.46 mean score and a maximum increase in their performance but controlled group who were handled by ground instructors who undergone the Hybrid Flightpath Teaching Training shows higher improvement as compared to uncontrolled group handled by ground instructors who did not undergo Hybrid Flightpath Teaching Training. They gained nearing mastery level of the lesson presented. The result is in consonance with the findings of Catublas, Unlu, Dokme & Tufekci (2014), they posited that using inquiry-based learning approach using the hybrid model resulted in a significant difference in the results of the pre-test and post-test and found to be effective in teaching students with the basic skills of the learning competencies.

Significant Difference Between Preassessment and Postassessment Results of the Controlled and Uncontrolled Groups

Table 3 shows the significant improvements noted on the performance of the student pilots in flight dispatch course handled by ground instructors who undergone the Hybrid Flightpath Teaching Training as evidence by their preassessment and post assessment results.

In the preassessment phase, 39 second-year student pilots participated, with mean scores of 11.2821 for the controlled group and 10.2821 for the uncontrolled group in the Flight Dispatch Course. The statistical analysis reveals notable differences between the controlled and uncontrolled groups in both the pre and post assessment phases. For the pre-assessment, the mean score for the controlled group was 10.2821, with a standard deviation of 2.85573. In contrast, the mean score for the uncontrolled group was 11.2821, with a standard deviation of 3.61247. The computed t-value of -1.402, with 49 degrees of freedom, resulted in a p-value

of .169, therefore, the null hypothesis is accepted, this indicates that there was no significant difference between the pre-assessment scores of the controlled and uncontrolled groups.

Table 3. Paired T-Test on the Significant Difference Between Preassessment and Post-Assessment Results of the Controlled and Uncontrolled Groups

Test		Mean	Sd	df	t-value	Sig. (2-tailed)	Interpretation
Pre assessment	Controlled	10.2821	2.85573	49	-1.402	.169	Accept the Null Hypothesis
	Uncontrolled	11.2821	3.61247				
Post assessment	Controlled	28.2821	4.69574	49	4.325	.000	Reject the Null Hypothesis
	Uncontrolled	23.7436	4.66069				

0.05 Level of Significance

For the post-assessment, the mean score for the controlled group notably increased to 28.2821, with a standard deviation of 4.69574. In comparison, the mean score for the uncontrolled group was 23.7436, with a standard deviation of 4.66069. The computed t-value of 4.325, with 49 degrees of freedom, resulted in a p-value of .000, therefore, the null hypothesis is rejected, indicating a statistically significant difference between the post-assessment scores of the controlled and uncontrolled groups. The controlled group demonstrated a substantial improvement in performance compared to the uncontrolled group in the post-assessment phase or the findings suggest a substantial improvement in performance among the controlled group compared to the uncontrolled group in the post-assessment phase.

The observed substantial improvement in performance among the controlled group compared to the uncontrolled group in the post-assessment phase can be attributed to several factors, including the intervention implemented during the study. The controlled group benefited from a specific intervention, likely involving training or instructional enhancements, aimed at improving their performance in the Flight Dispatch course. This intervention could have provided the instructors with additional skills, strategies, or resources to effectively teach the course content, resulting in better student outcomes. Conversely, the uncontrolled group did not receive the same intervention or enhancements, relying solely on traditional teaching methods. As a result, their performance may not have improved to the same extent as the controlled group. Overall, the statistically significant difference in post-assessment scores between the controlled and uncontrolled groups suggests that the intervention employed with the controlled group was effective in enhancing student performance in the Flight Dispatch course.

Student Engagement & Satisfaction

Table 4 presents the findings regarding student engagement and satisfaction with the Two-Weeks Flight Dispatch Lecture session. This table provides insights into various aspects of the learning experience, including engagement levels, satisfaction with instructional methods, and the effectiveness of technological integration.

A look at the table, the mean score for feeling actively engaged in learning during the Two-Weeks Flight Dispatch Lecture session is 3.56 for the AWM group and falls into the very satisfied category, indicating that, on average, students reported a high level of engagement during these sessions. This implies that the hybrid format, combining face-to-face instruction with online components, effectively meets the needs and preferences of students, fostering a conducive learning environment. Similarly, other aspects such as the combination of face-to-face instruction and online components (WM=3.68), meeting scheduling needs effectively (WM=3.78), and overall satisfaction with the session (WM=3.32), also received mean scores falling into the very satisfied category, suggesting positive experiences for students in these areas. However, aspects such as satisfaction with the use of technology (WM=2.12), online resources (WM=2.17) and feeling supported by faculty (WM=2.31) received lower mean scores falling into the very least satisfied category, indicating potential areas for improvement in these aspects of the learning experience.

Table 4. Student Engagement & Satisfaction on the Present Two-Weeks Flight Dispatch Lecture session

Engagement & Satisfaction	AWM	DR
• I feel actively engaged in my learning during Two-Weeks Sessions of Flight Dispatch Lecture.	3.56	VS
• The flexibility of the two-weeks Flight Dispatch Lecture session encourages me to participate more in class discussions.	2.78	S
• I find the combination of face-to-face instruction and online components in the two-weeks Flight Dispatch Lecture session beneficial for my learning experience.	3.68	VS
• The online resources provided in the two-weeks Flight Dispatch Lecture session enhance my understanding of course material.	2.17	VLS

• The flexibility to access course materials online at my convenience improves my overall satisfaction with the two-weeks Flight Dispatch Lecture session	3.41	VS
• The hybrid format of the two-weeks Flight Dispatch Lecture session meets my scheduling needs effectively.	3.78	VS
• I feel supported by faculty in navigating the hybrid learning environment of the two-weeks Flight Dispatch Lecture session.	2.31	VLS
• The use of technology enhances my understanding of course concepts of the two-weeks Flight Dispatch Lecture session.	2.12	VLS
• Overall, I am satisfied with my experience in courses that utilize the two-weeks Flight Dispatch Lecture session.	3.32	VS
Composite Mean	3.01	S

Legend: 1.00-1.75 Not Satisfied (NS); 1.76-2.50 Very Least Satisfied (VLS); 2.51-3.25- Satisfied (S); 3.26-4.00 Very Satisfied (VS)

Result implies that the high mean scores for aspects such as the combination of face-to-face instruction and online components, flexibility, and meeting scheduling needs effectively indicate that the hybrid format is successful in catering to diverse learning styles and accommodating students' scheduling constraints. This suggests that the integration of technology and flexible learning modalities can enhance student engagement and satisfaction. Despite overall positive scores, certain areas such as satisfaction with online resources and feeling supported by faculty indicate potential areas for improvement in providing adequate support and resources to enhance the online learning experience. Faculty development programs focused on effective online teaching strategies and providing comprehensive online resources could address these concerns. Despite overall positive scores, certain areas such as satisfaction with online resources and feeling supported by faculty received lower mean scores falling into the "Very Least Satisfied (VLS)" category. This indicates potential areas for improvement in providing adequate support and resources to enhance the online learning experience. Faculty development programs focused on effective online teaching strategies and providing comprehensive online resources could address these concerns. The composite mean score falling into the satisfied category indicates that, on average, students reported a satisfactory experience with the Two-Weeks Flight Dispatch Lecture session. This suggests that while there are areas for improvement, the overall learning experience in the hybrid format is positive and meets the expectations of students to a reasonable extent. The findings underscore the importance of ongoing assessment and continuous improvement efforts in hybrid teaching environments. Regular feedback from students and faculty, coupled with data-driven decision-making, can inform instructional design enhancements and pedagogical strategies to further optimize student engagement and satisfaction.

In general, the composite mean score, calculated across all aspects measured, is 3.01, which falls into the satisfied category, suggesting that, on average, students reported a satisfactory experience with the Two-Weeks Flight Dispatch Lecture session.

Evaluation of the Deans, Heads and faculty on the Effectiveness in Delivering the Curriculum through the Hybrid Flightpath Teaching Method

Table 5 provides an evaluation of the effectiveness of the Hybrid Flightpath Teaching Method as perceived by Deans, Program Heads, and Faculty & Ground Instructors involved in delivering the curriculum. The table presents mean scores for various assessment criteria, categorized by different groups within the academic hierarchy.

Table 5. Evaluation of the Deans, Heads and faculty on the Effectiveness in Delivering the Curriculum through the Hybrid Flightpath Teaching Method

ASSESSMENT	Deans		Program Heads		Faculty & Ground Instructors	
	AWM	DR	AWM	DR	AWM	DR
• The Hybrid Flightpath Teaching Method effectively enhances ground instructors' ability to engage students and promote their participation in the classroom.	3.63	VE	3.66	VE	3.70	VE
• Ground instructors find it easy to integrate technology and practical application into the curriculum using the Hybrid Flightpath Teaching Method.	3.21	E	3.34	VE	3.28	VE
• The Hybrid Flightpath Teaching Method improves students' understanding and retention of course materials in their teaching experience.	3.41	VE	3.44	VE	3.48	VE
• Ground instructors believe the Hybrid Flightpath Teaching Method adequately prepares students for real-world applications and challenges in the field of aviation based on their teaching observations.	3.46	VE	3.49	VE	3.53	VE

<ul style="list-style-type: none"> • Ground instructors receive adequate support and resources to effectively implement the Hybrid Flightpath Teaching Method in their teaching practices. 	3.41	VE	3.44	VE	3.48	VE
<ul style="list-style-type: none"> • The overall effectiveness of the Hybrid Flightpath Teaching Method in enhancing curriculum delivery is satisfactory based on the performance of the students. 	3.62	VE	3.65	VE	3.69	VE
Composite Mean	3.46	VE	3.50	VE	3.53	VE

Legend: 1.00-1.75 Not Effective (NE); 1.76-2.50 Least Effective (LE); 2.51-3.25- Effective (E); 3.26-4.00 Very Effective (VE)

From the table, the mean score for the effectiveness of the Hybrid Flightpath Teaching Method in enhancing ground instructors' ability to engage students and promote participation in the classroom is 3.63 for Deans, indicating that they perceive this aspect as very effective. The consistently high mean scores across various assessment criteria, indicating that Deans, Program Heads, and Faculty & Ground Instructors perceive the Hybrid Flightpath Teaching Method as highly effective. This suggests that the method is successful in enhancing instructor-student engagement, integrating technology and practical application into the curriculum, improving student understanding and retention of course materials, adequately preparing students for real-world applications, and providing support and resources for effective implementation

Similarly, other aspects such as the ease of integrating technology (WM=3.21, WM=3.34 and WM=3.28), improvement in student understanding (WM=3.41, WM=3.44 and WM=3.48), adequacy in preparing students for real-world applications (WM=3.46, WM=3.49 and WM=3.53), and overall effectiveness in enhancing curriculum delivery (WM=3.62, WM=3.65 and WM=3.69), all received mean scores falling into the very effective category across all groups evaluated. The positive perceptions of the Hybrid Flightpath Teaching Method align with the educational goals of preparing students for real-world applications and challenges in the field of aviation. The method is perceived to effectively enhance ground instructors' ability to engage students, promote participation, and facilitate meaningful learning experiences that bridge theory and practice. The perceived ease of integrating technology and practical application into the curriculum using the Hybrid Flightpath Teaching Method suggests that the approach is flexible and adaptable to diverse instructional contexts. This implies that instructors can seamlessly incorporate technological tools and experiential learning activities to enrich the learning experience and enhance student outcomes. The positive perceptions regarding the adequacy of support and resources for implementing the Hybrid Flightpath Teaching Method indicate institutional commitment to facilitating effective teaching practices. This underscores the importance of providing faculty with the necessary training, technological infrastructure, and instructional materials to optimize the implementation of innovative teaching methodologies. The overall effectiveness of the Hybrid Flightpath Teaching Method in enhancing curriculum delivery, as perceived by Deans, Program Heads, and Faculty & Ground Instructors, validates the efficacy of this instructional approach in achieving desired learning outcomes. This serves as a testament to the method's ability to meet the evolving needs of aviation education and prepare students for success in the field. While the perceived effectiveness of the Hybrid Flightpath Teaching Method is high, there may still be opportunities for continuous improvement. Regular feedback from stakeholders, coupled with ongoing assessment and professional development initiatives, can further enhance the method's effectiveness and address any areas of concern or improvement.

The composite mean scores, calculated across all assessment criteria, further reinforce the perception of the Hybrid Flightpath Teaching Method as highly effective, with mean scores ranging from 3.46 to 3.53, all falling into the very effective category. Overall, Table 5 suggests that Deans, Program Heads, and Faculty & Ground Instructors perceive the Hybrid Flightpath Teaching Method as highly effective in enhancing curriculum delivery, integrating technology, and preparing students for real-world applications in the field of aviation. Furthermore, the implications drawn from Table 5 highlight the positive perceptions of the Hybrid Flightpath Teaching Method among key stakeholders in aviation education, emphasizing its effectiveness in delivering the curriculum, integrating technology, and preparing students for real-world applications. These insights can inform strategic decisions and resource allocation to support the continued success and refinement of the instructional approach.

Conclusion

Based on the pre and post assessments, it can be concluded that the Hybrid Flightpath Teaching Method has had a significant impact on student performance and understanding. Before the implementation of the method, there was no statistically significant difference between the pre-assessment scores of the controlled and uncontrolled groups, suggesting similar levels of knowledge and proficiency. However, after two weeks of instruction using the Hybrid Flightpath Teaching Method, a notable disparity emerged in the post-assessment scores. The controlled group, which received instruction through the Hybrid Flightpath Teaching Method, demonstrated a substantial improvement in performance compared to the uncontrolled group. This improvement indicates that the method effectively enhances students' understanding and retention of course materials, as evidenced by their higher post-assessment scores. Therefore, it can be concluded that the Hybrid Flightpath Teaching Method is an effective approach for improving student outcomes in the Flight Dispatch course, as it leads to significant advancements in knowledge and performance compared to traditional teaching methods. The evaluation made shows that the Hybrid Flightpath Teaching Method is highly effective in aviation education. It not only aligns well with educational goals but also enhances instructor-student engagement,

promotes active participation, and facilitates meaningful learning experiences integrating theory with practical application. The method's adaptability and flexibility, coupled with positive perceptions of institutional support, validate its role in achieving desired learning outcomes and preparing students for success in the aviation industry. These findings underscore the method's potential contribution to advancing aviation education and highlight the importance of continued support for innovative instructional practices in the field.

Acknowledgement

Gratitude is extended to all participants involved in this study for their valuable contributions and insights, specially to the administration and executives of WCC Aeronautical & Technological College and World Citi Colleges for their support in conducting the Hy Hybrid Flightpath Teaching Program.

References

- Dodzi Amemado (2014) Integrating technologies in higher education: the issue of recommended educational features still making headline news, *Open Learning: The Journal of Open, Distance and e-Learning*, 29:1, 15-30, DOI: 10.1080/02680513.2014.908700
- Gwyneth Hughes, Elizabeth Wood & Kaori Kitagawa (2014) Use of self-referential (ipsative) feedback to motivate and guide distance learners, *Open Learning: The Journal of Open, Distance and e-Learning*, 29:1, 31-44, DOI: 10.1080/02680513.2014.921612
- Ornellas, A., & Muñoz Carril, P. C. (2014). A methodological approach to support collaborative media creation in an e-learning higher education context. *Educational Media International*, 51(1), 59-71. <https://doi.org/10.1080/02680513.2014.906916>
- Hughes, G., Wood, E., & Kitagawa, K. (2014). Use of self-referential (ipsative) feedback to motivate and guide distance learners. *Educational Media International*, 51(1), 31-44. <https://doi.org/10.1080/02680513.2014.921612>
- Amemado, D. (2014). Integrating technologies in higher education: The issue of recommended educational features still making headline news. *Educational Media International*, 51(1), 15-30. <https://doi.org/10.1080/02680513.2014.908700>
- Børte, K., Nesje, K., & Lillejord, S. (2020). Barriers to student active learning in higher education. *Teaching in Higher Education*, 25(5), 597-615. <https://doi.org/10.1080/13562517.2020.1839746>