

Please email the researcher for a copy of the full report.

To what extent does formative assessment affect pupil motivation in a S1 social subjects classroom?

Stuart Wynne

MEd Professional Practice at the University of Glasgow

With thanks to Dr Willie McGuire (University of Glasgow) for his support and guidance throughout this research project.

Rationale and Background

The rationale for this research enquiry stems from the need identified in the Scottish Government's framework for assessment (BtC5), which states: "The arrangements for assessment should enable and motivate all learners to develop to their fullest across the curriculum" (2011; 12). The Hayward review (2023) exemplifies that many Scottish learners and teachers report that a focus on examinations is dominating learning and teaching, leading to demotivated learners.

There is very little research offering insight into Scottish secondary education, and any research tends to focus on pupils who are in the upper-school: further research in this area will help to close this gap in the literature and deepen our understanding of the relationship between formative assessment and motivation in Scottish lower-secondary schools.

Research Questions

1. To what extent do formative assessment strategies have an impact on autonomous motivation?
2. To what extent do formative assessment strategies have an impact on controlled motivation?
3. What are the students' perspectives of formative assessment and what strategies best support them?

References

Hayward, L. 2023. It's Our Future: Report of the Independent Review of Qualifications and Assessment.

Scottish Government. 2011. Building the Curriculum 5 - A framework for assessment.

Methodology

A pragmatic paradigm was assumed, and a mixed-method approach was utilised, with the enquiry being conducted using quasi-experimental research with a nonrandomised control group pre-test – post-test design. Questionnaires were used to collect quantitative data while Focus Groups and a Teacher Log were used to collect qualitative data.

Overall, 41 participants were part of this study, with 14 pupils in the target group and 27 pupils in the control group. The timeline for this enquiry consisted of 12 periods, over 5 weeks during April and May.

The quantitative data was subject to descriptive and inferential statistical analysis to determine effect sizes and significance. A grounded theory approach was implemented to analysis the qualitative data to identify themes concerning pupils' perspectives on formative assessment strategies.

Ethical considerations were considered and prioritised when the research was carried out to ensure the project was conducted in accordance with ethical guidelines laid out by the university and by national research bodies.

Discussion

The research found that the implementation of formative assessment positively increased both behavioural engagement and autonomous motivation. Data suggested a positive classroom environment enhanced pupils' sense of autonomy and relatedness and pupils saw learning as an opportunity.

Formative assessment also positively increased controlled motivation. Expectations from friends and family heightened pupils' controlled motivation as they are trying to avoid feelings of guilt and shame, thus pupils becoming more motivated to surface learn.

Finally, pupils' perspectives indicated that formative assessment increased their understanding and confidence, allowing them to become more self-regulated and feel more active in their learning. However, learning targets need to be stressed during tasks and not just at the start of lessons if they are to be more effective. Additionally, the mixed perceptions of peer-assessment suggests that it must be conducted in a way in which it is taken seriously.

Findings

The target group had a comparatively bigger positive change than the control group for behavioural engagement (+0.26) with an effect size of 0.24. Autonomous motivation also had a comparatively bigger change for the target group (+0.09), with an effect size of 0.06. Pupils specified that they felt the classroom climate was supportive and inclusive and that pressure was removed as they were allowed to ask questions during tests.

Furthermore, the target group also had a comparatively bigger positive change in controlled motivation than the control group (+0.24), with an effect size of 0.22. Pupils highlighted external pressures heightened controlled motivation, especially in relation to tests.

Finally, pupils indicated that formative assessment allowed for the generation of dialogue that produced opportunities for feedback and learning. However, pupils' insights about learning targets highlighted a discrepancy between the actual and intended outcomes of learning target implementation, as criteria are not being discussed enough during lessons. Pupils didn't always take peer-assessment seriously, which impeded motivation as pupils did not trust the feedback or saw the exercise as meaningless.

Limitations

- The small sample size of 41 pupils meant that the research findings were significantly underpowered, and this is potentially why none of the effect sizes were found to be significant.
- Another limitation to the research study was time constraints, as the research was only carried out over a short time-frame, limiting the number of lessons delivered and the range of formative assessment strategies that could be implemented.
- A limitation of the teacher log was the lack of investigator triangulation, lowering the credibility of the method as it can be considered biased.
- Although confounding variables were partially accounted for, the specific nature of the groups located in one year group in one high school in Scotland may not be able to be validly extrapolated to other/wider contexts as the specific geographical and cultural contexts may render this unreliable.

Recommendations

There are several recommendations if a similar research study were to be carried out in future:

- One recommendation would be to have a bigger sample size, for the findings to be more reliable, valid and potentially more significant.
- A bigger sample size would also allow for more or bigger focus groups to be conducted, allowing for more perspectives and insights into formative assessment to be elicited.
- Another recommendation would be to start the intervention phase earlier, so that the intervention could run for longer and more formative assessment strategies could be implemented. This would allow for a wider range of experiences and contexts.