



Student Intervention Guide

1. Introduction

Learning analytics is only of benefit if it has an impact. The purpose of this resource is to enable institutions to achieve impact by planning effective analytics-led interventions. For a host of reasons, not least the fact that many of your analytics-led interventions will identify students with non-academic issues, institutions are **STRONGLY** advised to consider the themes below. Under each theme header, you'll find further information including the questions that institutions should ensure that they know the answers to before staging even their first interventions.

2. Intervention Considerations

Intervention role

Who in the institution is responsible for making analytics-led interventions?

Institutions' analytics strategies will have the greatest success where specific staff or staff in specific roles have been tasked with following up on analytics data. Moreover, from a Data Protection perspective, only staff with such explicit responsibility should have access to the analytics information intended to inform interventions

Recognition of Autonomous Learning

Do our intervention practices respect the principles of autonomous learning?

The development of independent students with the capacity for autonomous learning is an essential aspect of Higher Education. Any analytics-led intervention, whether automated, by phone or face-to-face, should offer students the opportunity to make informed decisions about their own studies. They should not mandate students to comply with a course of action dictated by the institution.

Dignity & Respect of Student

How have we ensured that our intervention practices have enshrined the dignity of and respect for all of our students?

Interventions that are respectful and sensitive to students' circumstances may be expected to strengthen the trustworthiness between the institution and students and are more likely to facilitate a successful outcome for both. Interventions that do not take these factors into account may jeopardise the perception of LA among the student body.

Procedure for escalating crisis issues

Analytics-led interventions can uncover students' severe personal or medical issues. Have we planned for this?

It is better that the escalation routes for personal and medical issues are explicitly embedded into the institution's strategy in advance, rather than pieced together on the spot once a student in critical need has been found. This is key not only to ensure that students in need get the best possible support but also to make certain that staff are not



left feeling responsible for critical situations for which they are not trained or equipped.

Tone of communications

Have we ensured that the language used in any communications with students is encouraging, supportive, positive and sensitive?

An intervention that leaves students feeling destined for failure will be of no benefit to either them or the institution. The language used must be sensitive to the fact that students' low engagement may stem from medical, personal, financial circumstances or feelings of inadequacy or hopelessness.

Recognition of demands on staff resources

How have we ensured that the relevant staff have the resources they need (including training and time) to make effective interventions?

Effective interventions take longer than ineffective ones. Institutions that ensure that staff have the time and resources required to make thorough, attentive interventions experience greater success than those that fail to do so.

Guidance on specific actions for each scenario

Do our interventions provide students with all of the information they require to take effective action in a clear, easy to understand format?

Interventions (especially automated ones) should point students to the resources or direct them to courses of action that may improve their chances of success. However, it is also recommended that such resources are not offered prescriptively. The most effective intervention will require some element of self-reflection on the part of the student.

Timing of interventions

At what point will we make initial and follow-up contact with students?

Interventions should be made as early as possible to ensure that students have the opportunity to develop effective learning habits before they are negatively affected. However, this drive must be balanced against the need for informative data on a student's patterns of engagement. Many data models will begin to provide meaningful patterns between weeks 4-6. The timing of follow-up interventions should be based on an institution's understanding of its own students' needs. Keeping track of the type, timing and outcome of interventions will enable institutions to identify patterns of success.

Schedule of interventions and intervention types

Through what medium (email, phone, face to face etc) will we make initial and follow-up contact?

Many institutions that employ analytics often report a quantifiable change in student behaviour after an initial email. This has the advantage of also being a resource-effective



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means of contacting a large number of students so may be an ideal way to begin.

As with the point about the timing of interventions above, institutions are best to use their own iterative intervention data to identify the follow-up channels with the greatest evidential success.

Triggers for interventions

What are the flags in our analytics that will trigger either an automated or staff-driven intervention?

Interventions will be prompted by information from a student's footprint of engagement. Institutions must decide the indicators and thresholds that will prompt an intervention (eg students whose engagement with the VLE is less than 30% of their peer group average). These thresholds should be selected based upon an analysis of historic data that shows the flag with the best evidence-based record for identifying students that may be experiencing difficulty and may benefit from an intervention

Oversight of interventions

Who in the institution is responsible for ensuring that all analytics-led interventions are compliant with the institution's guidelines?

A well-planned approach to analytics is a major factor in a successful strategy. Having put all that effort into planning your analytics, it only makes sense to make sure everything's being done as expected!

Student complaints

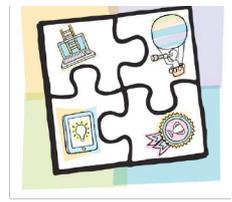
Have we established a formal route through which students can make complaints about analytics-led interventions?

Facilitating student complaints reinforces the message that institutions' analytics strategies are transparent and student-centred. This gives students an important element of control over their own records and how they are used and scaffolds the trustworthiness that is at the heart of the relationship between students and institutions. HEIs may decide that their current complaints process is fit to purpose for complaints about analytics-led interventions. It is imperative that students are informed of the existence and mechanics of this process.

Student opt-out

Have we established a process by which students can request that the institution does not intervene based on their analytics footprint?

Although forcing students to accept interventions is not against the letter of the current Data Protection Acts, it does contravene their spirit. Best practice dictates that students should be given the opportunity of opting out of interventions. This does not prohibit institutions from continuing to use the data from such students in their predictive models.



Intervention triggers

Will students be told what prompted the intervention or, in the case of analytics portals that can be seen directly by students, will they be able to see how their analytical indicator has been calculated?

It is a requirement of Data Protection that students must be able to identify exactly how their data is utilised in any LA modelling or algorithms. Moreover, it may be beneficial to students, from a self-reflection perspective, to make it clear how their indicator has been calculated. This information may provide valuable direction to students in terms of assisting them to develop more beneficial learning approaches.

Staff training

What steps have we taken to ensure that all staff who are involved in analytics-led interventions are fully trained and informed?

Staff are more likely to make effective interventions if they know exactly what is expected of them and what falls outside the realm of their responsibility.

Data security

What steps have we taken to ensure that students' analytics information is held securely and is only made available to staff with an explicit need for access?

This aspect is essential to ensure that institutions' LA strategies are compatible with Data Protection and their own data security policies. It is also a keystone of the trustworthiness that underlies the relationship between students and institutions. Oversights here could have a massively negative impact on the institutional perception of LA and support for an evidence-based culture.

Sensitivity to disabilities

What steps have we taken to ensure a universal design approach that is cognisant of the specific needs of students with disabilities?

Bear in mind that platform design and the broader intervention process should be sensitive to the needs of students with (eg) visual impairments, dyslexia, dyspraxia, colour blindness etc.

Circumstances for breaking confidential

Have we explicitly detailed the circumstances under which it is our policy to break confidentiality (eg to contact parents, GP etc)?

Although this is a concern whose reach extends far beyond LA, institutions are strongly advised to ensure that their intervention approach is informed by the local policy/practice that elaborates the institutional position. It is essential that the staff tasked with making interventions are fully trained and informed of the limits of their individual responsibilities and know the requisite steps to take when those limits have been



reached. Bear in mind also that there may be different requirements for international students or students under 18.

Limits of Institutional Responsibility

Have we defined the limits of the responsibilities of the institution and individual staff for student welfare?

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Support for affected students

Have we taken steps to provide support for students impacted by the welfare concerns of their peers (eg supporting housemates of students who may be considering suicide)?

Although this is not inextricably linked to LA *per se*, institutions should expect LA to help support staff to identify many students with personal and medical issues of which the institution was heretofore unaware. Institutions are advised to have resources that can be extended to students impacted by the circumstances of their peers.

Gathering and analysing intervention data

Have we taken steps to apply an analytical approach to providing best-practice interventions?

As an evidence-based methodology, it is appropriate that actions and interventions prompted by Learning Analytics should, themselves, be based upon evidence. Institutions are strongly advised to enable reflective research that assesses the success of such actions within the institution and that this research is used to evolve and develop the analytics strategy. One means of enabling this is by recording and reviewing the types/timings/sources etc of interventions to provide an evidence base for effective, informed interventions

Ability to use analytics data for research purposes

What are our procedures for lecturers and other staff to apply for ethical approval to use students' analytics information for research into designing and evaluating interventions?

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the analytics strategy. Steps taken may include ensuring that your institutional ethics committee has a full understanding of the issues involved, establishing formal guidelines on how student data can be/should not be used for research purposes, and on how and when to obtain consent for its use and drawing up guidelines around publication and dissemination of the outcomes of analytics-based or informed interventions taken in the legitimate interests of the institution and of student welfare and learning.

Defining 'success'

Learning Analytics, to a large degree, is about supporting student success; Have we, as an institution, considered what we mean by 'success'?

HE students are autonomous individuals and institutions are strongly advised against a one-size-fits-all approach to student success. It is not the case that the greatest and most apt benefit HE can bestow upon each and every student is a 1H. Institutional interventions should be sensitive to the varying needs, aspirations and talents of individual students.