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# The Kubler-Ross Change Curve and the Flipped Classroom: Moving Students Past the Pit of Despair

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## Abstract

Change is hard. The flipped classroom, while a powerful and growing force in medical education, is a major change for many health professions' students. Instructors may avoid "flipping" due to anticipated student resistance and poor course evaluations. The business community has developed specific guidelines on how to manage change using the Kubler-Ross death and dying change curve. This article suggests the change curve and related management strategies can and should be applied to flipped classroom scenarios. Action steps are provided for each stage that can help students move from stress and frustration ("I can't learn this way") to integrated learning as fast as possible, while simultaneously allowing the full advantages of the flipped classroom to be realized.

**Keywords:** Active learning, change curve, flipped classroom, integration, student resistance, student stress

## INTRODUCTION

Active participation in the classroom improves student learning and retention.<sup>[1,2]</sup> Students who discuss and practice material learn more than their counterparts, with more activity correlated with more learning.<sup>[3,4]</sup> The natural end point is the flipped classroom approach.<sup>[5]</sup> With a flipped classroom, students learn basic information outside of class and then use class and instructor time to work with the more challenging material. Studies in medical education have found the flipped classroom improves engagement and motivation while being as effective as standard classroom formats.<sup>[6,7]</sup> However, the transition from lecture to a flipped classroom can be daunting for all involved and can lead to concerns about student resistance.<sup>[8-12]</sup>

The flipped classroom is a drastic change for many students, particularly in professional education. The typical professional student was often very successful in a lecture-based environment. To be metabolically efficient, the brain generally tries to predict what will happen next and spends energy only when reality is different than the prediction.<sup>[13]</sup> Whether physically moving to an active classroom or changing the format in the same classroom, flipping the class session minimizes the brain's predictive power, stimulates the amygdala, and increases brain activity.<sup>[14]</sup> Thus, the change

curve is activated. The brain and its attendant student are set on high alert and have to work to mitigate the stress response. As Tolman *et al.* suggest, we should consider signs of student resistance a signal rather than an attitude.<sup>[15]</sup> Students may not be resistant, but rather mentally occupied.

## THE KUBLER-ROSS CHANGE CURVE

The Kubler-Ross change curve is also known as the five stages of grief (denial, anger, bargaining, depression, and acceptance).<sup>[16]</sup> The curve has since been broadened and modified to reflect typical stages of personal and organizational change.<sup>[17,18]</sup> The management change curve typically describes four to seven separate stages, starting with shock and ending with integration [Figure 1], and is used to help explain and predict how people will respond to change.

The Kubler-Ross change curve is rarely discussed as a part of the student (or faculty) response to the flipped classroom.<sup>[10,19]</sup> However, it is very likely a significant force and addressing it

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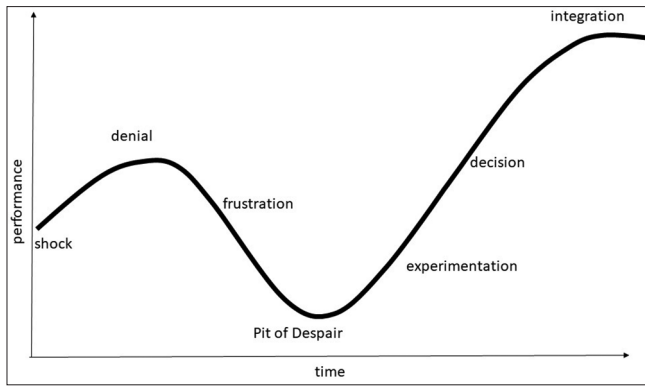
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**Figure 1:** The typical stages of personal change are shown in the figure above. Shock or surprise is followed by denial or disbelief. The third stage is frustration or anger, and the fourth stage is depression (pit of despair). Experimentation or engagement hopefully follows. Time permitting, students continue into the stages of decision and integration

may enhance learning. Eustress is considered good for learning but not all parts of the change curve stay within that zone of good stress and parts can be very detrimental for learning.<sup>[20]</sup> If left to unfold naturally, the stages vary in length between individuals with most everyone progressing from denial to acceptance over time. In the classroom, however, it is imperative that the process should be shortened as much as possible to allow change (integration) to occur. The business world has developed key guidelines to help people at various stages of the curve adapt and move forward in a timely manner. Furthermore, these guidelines can be directly applied to the classroom.

## PURPOSE

The goal of this article is to (1) show how the change curve reflects student stressors associated with flipped classrooms and (2) suggest steps that should minimize time spent managing student stress while also maximizing time spent on course-related material.

## MANAGING THE KUBLER-ROSS CHANGE CURVE

### Shock and denial (panic)

The first reaction to significant change typically is shock, followed quickly by denial. People in this phase may not be fully functioning and may need additional reassurance and guidance. Further, performance often drops and learning is impaired.<sup>[17,18]</sup> For many students in medical and health professions programs, these feelings often manifest in the form of panic. Students grow convinced that the course will ruin their grade point average, their chance for scholarships, and possibly their future as a health professional. Management steps are available [Table 1].

### Frustration

Frustration typically sets in as soon as panic subsides. Here, students' brains are still trying to adjust to the new normal and working hard to reduce the stress response. Students struggle to learn in this new paradigm as their traditional classroom habits

### Table 1: Managing shock and denial (panic)

Warn students that change is coming. Make sure they are aware of it before stepping into the classroom. Give students as much time as you can for them to get through this stage before class even starts

People deal with shock in a myriad of ways; provide resources for as many as possible. Give data to the ones that need evidence; give stories and videos for those that like to visualize what they should expect. Provide details on what will happen, when, and why. Be particularly clear on what does and does not affect the course grade. Minimize the risk of further surprises

Alleviate panic by having students experience the change; start with a flipped session. Students are very likely to survive. Remember, students are focused on the experience rather than learning content; assume whatever you are trying to teach them will not sink in fully. The syllabus or group function dynamics are often useful introductory topics<sup>[10]</sup>

Have students discuss the benefits of a flipped classroom and set self-expectations. When asked, most will identify that limited class hours are better spent on applying the material versus learning the easier background knowledge<sup>[10,21]</sup>

If students have experienced a flipped classroom or group work before, you may also need to discuss group norms and functioning<sup>[11]</sup>

and skills are less effective. Research suggests that frustration is productive for student learning and retention,<sup>[22]</sup> but students typically will not see that on their own as they are still in denial. Even for students who agree the flipped classroom format is useful, the adjustment and type of learning are often still challenging.<sup>[7]</sup> If we were to solicit feedback at this stage, we would likely hear statements such as "I'm not paying tuition to teach myself," "this is too hard," and "I can't learn this way." Some students become stuck at this stage, and we only learn of their frustration when we review comments from end-of-course evaluations.<sup>[23]</sup>

Further complicating matters, students know most courses begin by covering fundamental concepts and grow progressively more challenging over time. As students become increasingly familiar with the flipped classroom format and develop the skills necessary for success in this format, the learning experience becomes less stressful. However, many students will assume that an already challenging course is going to become exponentially more difficult and that it may be virtually impossible for them to succeed. Table 2 shows the management suggestions.

### Depression

Frustration is followed by depression or the "pit of despair." At this point, the work is still hard, and students are not yet seeing the light at the end of the tunnel and are no longer stimulated by the environmental change (lower adrenaline release). The material may also be becoming more challenging with time [Table 3].

### Experimentation

After depression, things typically start to get better. Students realize that they might actually be learning and they start to experiment and push out of their comfort zones. Eustress now predominates, as does learning [Table 4].

### Decision

If experimenting goes well, students decide to commit and performance improves, accompanied by a more positive mental

**Table 2: Managing frustration**

Remind students why they are in a flipped classroom.<sup>[19,24]</sup> It is important to repeat (or explain) why you are putting them through this “torture” at this stage. Data are useful, especially with professional students. Showing them data does not mean they will like it and many will see themselves as outliers (“yes, but I learn better with lectures” or “I don’t learn well in groups”). Repeat over the next few sessions<sup>[10]</sup>

Tell them (and show them) that this is the hard part and they will get better at this type of learning

Review the commitments and plans developed in the first session. Use a minute paper or other methods to have students outline the benefits of the flipped classroom or change. It is more powerful when they can name it themselves<sup>[21,24]</sup>

**Table 3: Managing depression**

Get student frustrations out in the open; they can even show you where they are on the change curve. Knowing that this is a normal process can help many learners work through the “pit of despair” and you can gain useful information on where they are and what other supports may be needed for them to succeed in your course

This is a good time to get feedback, even though you know it will not be pleasant.<sup>[25]</sup> Set up mid-semester evaluations or a focus group. If they ask for the date of the next focus group meeting, make it soon! If you can, implement at least some of the suggestions (and be visible about it; take credit!). Take time to explain why you cannot or will not implement the others. This may well be another opportunity to explain why you are doing and what you are doing

Show them they are improving. Give them a frame of reference for where they are compared to previous classes or even since the beginning of the course (more work in less time, improved quiz scores, etc.). The students will not have any idea they are outperforming other groups unless you show them. Find a way to give them a benchmark

**Table 4: Managing experimentation**

Reward and celebrate the experimenting behavior. Even professional students like gold stars. Rewarding excellent performance is easy with a “good job” sticker. Candy for classroom competitions can be very successful if kept low key; no grades, no points, all fun

outlook. However, do not expect students to make it known that their attitudes have shifted. At this point, it is critical to keep moving forward [Table 5].

**Integration**

The goal of the flipped classroom is generally critical thinking and application of integrated knowledge. It is now happening. With careful attention to the previous stages of the change curve, it may even be occurring before the end of the course. Students are now comfortable with the new format and are learning and retaining more. They have been practicing integration and application and are gaining significant skills in critical analysis. However, it is their new normal and they do not realize that it is extraordinary [Table 6].

**OTHER CONSIDERATIONS**

Following at least some of the steps in Tables 1-6 should help ease students through the change in format with the majority

making it beyond the pit of despair into experimentation or even integration. However, a number of additional considerations may also be helpful.

**USE BACKWARD DESIGN**

Backward design helps focus objectives and align them with examination questions and classroom activities. Instructors will inevitably need to cut some content to flip the classroom. Using backward design can help educators know what content to retain.<sup>[7]</sup>

**MINIMIZE RISKS**

The transition to a flipped class format may be more complex than one might anticipate. It may be helpful to retain other elements of the course with which students are already familiar (e.g., use an existing testing format, etc.) or to use a template for a flipped classroom such as team-based learning.<sup>[27]</sup> Avoid adding more change if possible.

**ENSURE INDIVIDUAL ACCOUNTABILITY AND PRELEARNING WORK**

Hold students accountable by retaining elements of the course that rely on individual preparation (e.g., individual assessments) to ensure students have adequately prepared for class.<sup>[7,27,28]</sup>

**USE TESTS WISELY**

Assessment drives learning. Professional students often study strategically for the anticipated test format.<sup>[29]</sup> If students should use the literature, work as a group, analyze options, and be able to handle complex cases, the test should emphasize complex cases that require them to use the literature and each other to come to a decision. Moreover, for them to succeed on that examination, they need to practice those skills often.<sup>[10]</sup>

Tests also have significant power. Students will be more likely to retain tested material and more likely to forget untested material.<sup>[30]</sup> Therefore, it is imperative that critical material is tested. If possible, re-assess students on the content (e.g., cumulative examinations) to increase the likelihood of knowledge/skill retention.<sup>[31]</sup>

**COMMIT TO THE CHANGE**

Students are not the only ones experiencing the change curve with a flipped classroom. Instructors are experiencing and coping with change as well. Instead of shock, instructors generally start with high expectations;<sup>[10]</sup> however, change takes time. Creating a highly functioning flipped class scenario often takes 2–3 years; in the interim lies the “pit of despair”. To help instructors through the process, Review the literature, discuss with colleagues, and reinforce the reasons the change was desired and needed.

**Table 5: Managing the decision**

Repeat the whys behind the change and talk about where they are on the change curve now. Show them how well they are performing. Tell them how proud you are of their work. At this stage, you can pull out test questions from the first session and demonstrate how much they remember without having to study. Save end of course comments for the next year's course introduction

**Table 6: Celebrating integration**

Make sure your final examination reflects the course goals. It should involve the same type of challenges – literature finding, analysis, application, and group function – as your course did. This is not the time to give them a closed book multiple choice test – at least not just that. While there may be facts they just need to know, students also need to show you how well they can now tackle challenging problems and work productively with colleagues. Make sure that is on your test too

Debrief the examinations. You can go over the responses as a class or have students grade their own answers as compared to your key. If you are using challenging real-life cases, there will not be a single right answer. Students can analyze their response compared to yours: was it an equally good (or better) response but just different? Or did they miss a component? Developing metacognition skills is another great outcome<sup>[26]</sup>

**MINIMIZE OTHER CHANGES**

Students benefit from a consistent format to lower their cognitive load.<sup>[32]</sup> The more instructors that are included, the harder it likely will be to maintain consistency. While there are mechanisms that can help (e.g., a course coordinator that sits in on each lecture, asking each instructor to use a consistent format, etc.), each additional instructor will tend to add variability that could make the learning experience more difficult for students by way of inconsistent test questions, different approaches, etc. This does not mean other instructors cannot be involved, but consistent formatting can go a long way in helping students become better acclimated to a course.<sup>[33]</sup>

**BRACE YOURSELF (AND YOUR SUPERVISOR)**

It is important to recognize that many instructors experience a decline in course and instructor evaluation scores after switching to a flipped classroom approach. As noted previously, students often do not take kindly to change, so one would be wise to prepare for some hiccups. It may be advantageous to alert relevant evaluators (e.g., one's department chair, re-appointment and promotion committee, etc.) of any plan to dramatically change a course and obtain his/her/their support. It also would be advantageous to collect feedback early and often. Research has noted that midterm evaluations often result in increased course evaluation scores just by giving students the opportunity to give formative feedback.<sup>[34,35]</sup> Of course, formative feedback can also be useful for making course corrections on the fly, particularly in the first few iterations of the course. Finally, students often provide constructive comments. Discussing feedback may provide an opportunity to reiterate why the course has been flipped and what the instructional process is intended to do.

**PLAN SMALL CHANGES**

As the course ends, make notes on future modifications. Keep the changes small and doable; set specific, measurable, and attainable goals. The process is complex and the desired changes can occur over time. With each iteration, the goal will be to move more and more students to integration; this will be imminently more doable as the standard changes from lecture based to active learning class formats.

**CELEBRATE**

When finished, celebrate! The changes made, when thoughtfully considered, are likely to result in greater learning and retention. Although the experience may be painful at times, persistence does tend to pay off.

**CONCLUSION**

Paying attention to the Kubler-Ross change curve and proactively intervening to speed the process may help students more rapidly achieve integration and learn more effectively. Without careful attention, the flipped classroom model may not be able to achieve its full potential. With attention to the change curve, flipped classrooms may become even more powerful for student learning.

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