

*Motivation in MOOCs: A Qualitative Study on the Design and Evaluation
of an Online IELTS Course*

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The IAFOR International Conference on Education in Hawaii 2022
Official Conference Proceedings

Abstract

Due to the pandemic, 2020 was an unprecedented year, including for online course providers as one-third of the learners that ever registered on a massive open online course (MOOC) platform did so in 2020. This paper focuses on a MOOC course on IELTS, which is the most popular test-prep language course on Udemy.com. However, despite its overwhelming popularity, upon closer inspection, the course seems out of line with the current body of research on motivation, and motivational supports are by and large absent. In this paper, the authors analyze this Udemy learning experience for built-in motivational supports by applying multiple theories of motivation and learning/teaching. Suggestions as to how to improve the MOOC design are then made. The analysis can potentially shed light on ways to aid MOOC course designers in catering to a diverse student body, including students under stereotype threat. Importantly, the results of this research are deemed generalizable and applicable to numerous other MOOCs for language learning, test-taking, and beyond.

Keywords: Motivation, MOOC, Course Design, Learning Experience Design, IELTS, Exam Preparation, Udemy, Learning/Teaching, Learning Dispositions

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1. Introduction

The IELTS exam is an international high-stakes exam taken by more than 3.5 million people yearly. These people take it for a variety of reasons, the most important of which are to study or seek employment abroad.

The Udemy course named *IELTS Band 7+ Complete Prep Course* is a course aimed to prepare students to take the IELTS exam and pass it with a score of a 7.0 on a 9-point scale. The course is by far the most popular course on English language exams on the platform Udemy.com, with its 100,000+ registrations, a 4.5-star rating (see Figure 1).

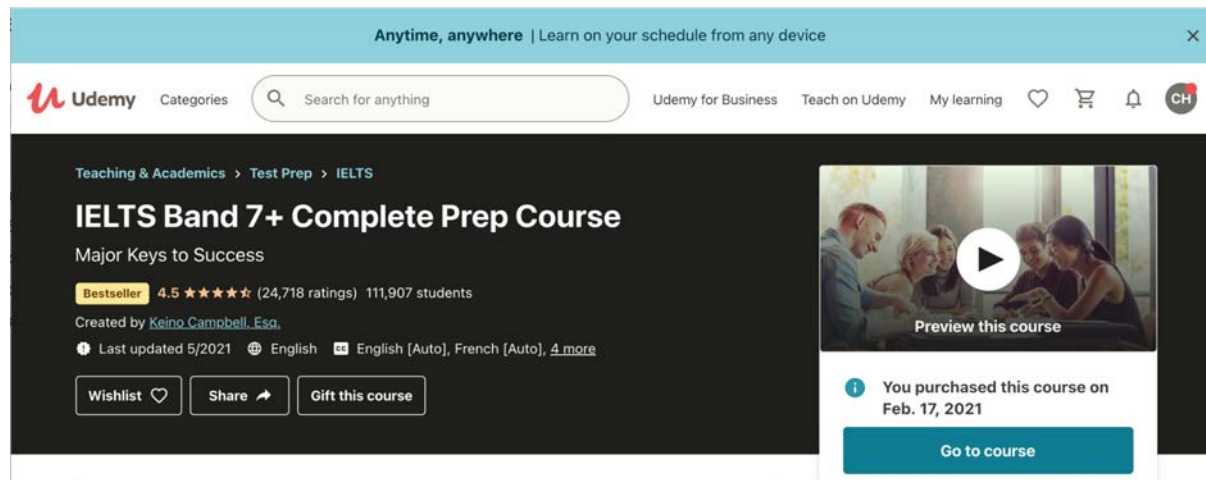


Figure 1: Course Page.

To put the issue in context, due to the pandemic, 2020 was an unprecedented year for online course providers, and one-third of the learners that ever registered on a MOOC platform did so in 2020 (Class Central, 2021). One of the biggest players on the MOOC market, Udemy.com is an American MOOC provider of an open marketplace offering more than 157,000 online learning courses from over 57,000 instructors covering a wide range of topics and being the world's largest catalog of online courses (Shah, 2021). The target audience is students and professionals, and they take courses largely as a means of improving job-related skills. Our analysis of this IELTS course on Udemy could help us comprehend how learners may be motivated by online course designs on Udemy and more broadly, on other MOOC platforms.

The mentioned course looks stellar: its instructor was ranked a Top Performer in exam preparation and was rated a 'Top 10% Most Engaging Instructor', and the reviews that indicate higher completion rates than, for instance, on such major MOOC platforms as HarvardX and edX (Reich, 2019).

Typically, IELTS test takers are non-native speakers, but they vary on multiple other characteristics such as age range, socioeconomic background, learning preferences, and at times even goals. When studying for language tests such as IELTS, people — based on their personal circumstances — choose from an array of common methods of preparation including in-person and online classes, for example, at language schools, one-on-one tutoring, self-study with coursebooks and materials, and online resources. The pandemic has compelled many more learners to opt for the latter option. The exam is a goal imposed by

society, which means this group may need extra support to complete the MOOC (see more on this under SDT).

At first glance, the course does not seem to consider this motivational schism and focuses on several performance-related claims regarding what is possible to achieve using the course: essentially, increase the IELTS score to a 7.0 or higher. The course also promises to address each of the exam skills: Listening, Reading, Writing, and Speaking.

In this paper, we analyze the learning experience on Udemy for its motivational supports by applying the following concepts: self-determination, self-efficacy, the protégé effect, engagement and social identity, and learning dispositions. In doing so, we are going to consider various theories of motivation (see Part 2), based on the evidence we draw from our experience, the course itself and the reviews. Part 3 is devoted to the strengths and limitations of this experience, and possible applications of our findings to new MOOC designs. We also make suggestions as to how to improve the MOOC, which is expected to help our team and course designers clarify the aspects of the experience that affect students' motivation; our findings may then be used to inform the design of a new MOOC on IELTS preparation and beyond.

2. Theoretical Framework for this Experience

2.1. Self-determination Theory

We first consider self-determination theory (SDT), originally put forward by (Deci, Koestner, and Ryan, 1999): people feel more motivated when they believe they have autonomy in making decisions, relatedness to the community, and the feeling they are competent in the task at hand.

On the surface, the course takes care of students' motivation, for example, it offers a contest for 5 hours of individual tutoring. This is evidently extrinsic motivation, which the theory defines as 'performance in order to attain a separable goal,' in addition to the exam itself representing extrinsic motivation as it is imposed by society to prove English competence. Unfortunately, according to SDT, 'all expected tangible rewards made contingent on task performance do reliably undermine intrinsic motivation.' This theory also stipulates that imposed goals 'diminish intrinsic motivation' because they communicate to the student that the locus of causality is external, i.e. this activity is "happening to" the student rather than "caused by" them. Therefore, considering SDT, the seemingly lucrative 5-hour prize does a disservice to a participant, undercutting intrinsic motivation and autonomy.

On a different note, the course seems to promote autonomy as it is self-paced. Students are free to navigate the modules at their convenience, repeating parts of the lessons, and fast-forwarding those already mastered. This freedom to decide on what terms to engage with the course promotes student autonomy as the actions are "congruent with and regulated by one's self" (Deci, Koestner, and Ryan, 1999). However, of note is that all Udemy courses are self-paced by default, and it was not the instructor's design decision.

We now examine another major pillar of SDT, competence. Trenshaw et al. (2016) maintain that through autonomy, e.g. giving students choices, "instructors can help students better internalize their sense of competence." They also argue that giving students personalized levels of challenge, clearly articulating course goals, and delivering on them, helps satisfy the

motivational need for competence. This MOOC, unfortunately, does not both clearly articulate its goals and deliver on them, and offers no personalization.

The least promoted SDT principle in the course may well be relatedness, or a sense of belonging to a group. While it naturally develops from and in group work, the course, as was mentioned above, offers no opportunity to interact with others except for the forum where you are limited to leaving a course review or upvote/downvote another. A suitable place to promote this would be the live session, but from the experience of our team (full description omitted), students in such Zoom meetings get scolded for turning on their cameras and/or microphones, leaving the students with no evident means of interaction except try to conspire through private messages. Therefore, our main suggestion to improve the course in line with SDT would be to build in relatedness supports, or interpersonally meaningful interactions (see more on this in Conclusion).

2.2. Self-efficacy

In this part, we consider how the course promotes self-efficacy, or a person's belief in his or her ability to succeed in a particular situation. According to Albert Bandura (1986), human motivation, well-being, and personal accomplishment are based more on what an individual believes than on what is objectively true. The instructor in the course does in a way convey this message to his students: the message that many people have taken the exam successfully before and that if you participate in the course with an 'intermediate English ability,' you will be able to receive an advanced score (as promised by the instructor).

While this affirmation may reduce negative emotional states and improve students' emotional well-being, it does not mean that the students will obtain the skills necessary to perform. As Carol Dweck points out, "no amount of self-efficacy will produce a competent performance when requisite skills are lacking." To assess the development of requisite skills (which affects self-efficacy), evidence of growing expertise is of utmost importance. Unfortunately, the course almost exclusively relies on worked examples to provide a proxy for this evidence: in the listening section, for instance, the student does not interact with the course except by listening while the instructor is modeling thinking and problem-solving, and it is up to them to infer which of the specific listening skills mentioned they are better or worse at. It also seems doubtful that the students in this course can learn through vicarious experience (Bandura, 1977) from a person whose ability is so dramatically different from theirs, and there is research (Mayes, 2015) that highlights the importance of having 'real learners as opposed to those imagined by teachers' in vicarious learning. This importance compels the authors to suggest including a social component in the course to foster self-efficacy through vicarious learning.

2.3. Growth Mindset and Persistence

As defined by this theory of intelligence, people with a growth mindset believe that intelligence is not a fixed trait, but rather a malleable quality that can be cultivated (Dweck, 2002). Consequently, holding such a belief helps people attribute success to effort and learning, and consider failures learning opportunities worth seeking. Such students are more interested in learning than looking good. Students not holding this belief tend to quickly become disengaged from difficult activities. There is ample research suggesting that growth mindset belief improves the student's persistence in learning, and oftentimes, outcomes, on the condition that the environment is supportive of the intervention (Yeager, 2019). Having a

growth mindset is therefore beneficial; but how can the instructor in a MOOC support learners' developing a growth mindset? We answer this question first by looking at the literature on mindset.

In the literature on the growth mindset, the following two ways are suggested. The first way would be to recognize and praise students' achievement based on their effort and what happened during the process, rather than for their ability and intelligence focusing on their performance. A shift in thinking from a fixed to a growth mindset contributes to students' motivation in responding to their weaknesses, and have greater persistence in facing failure (Dweck, 2002).

The second way is for the instructor to model the growth mindset to students. This has been shown to have benefits on the student's internalization of the concept (Dweck, 2017).

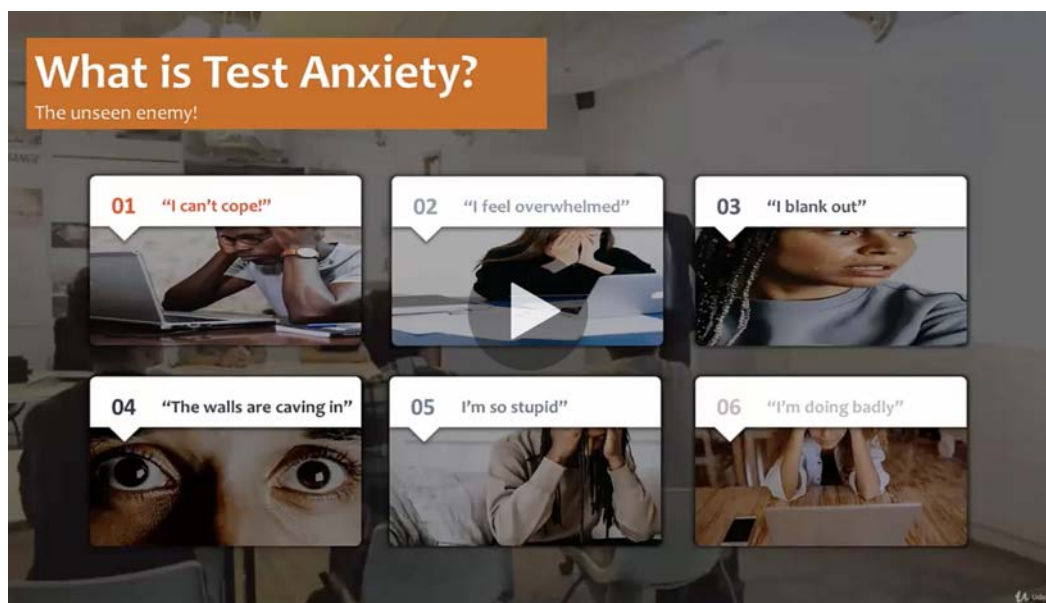


Figure 2: What Is Test Anxiety.

One place where the instructor's attitude to the two mindsets transpires is the first section of the course, 'Managing Test Anxiety,' which is a common challenge faced by many test takers. The instructor's key message is that test anxiety is 'a learned behavior, and any learned behavior can be unlearned' by being aware of the issue and actively counteracting it with adequate strategies.

From various quotes (omitted from this version of the paper), we can see the instructor wants his students to focus on their effort, which would then lead to a desirable overall performance. During the live sessions, the instructor helps students to become aware of the thinking and common myths behind test anxiety (see the slide below).

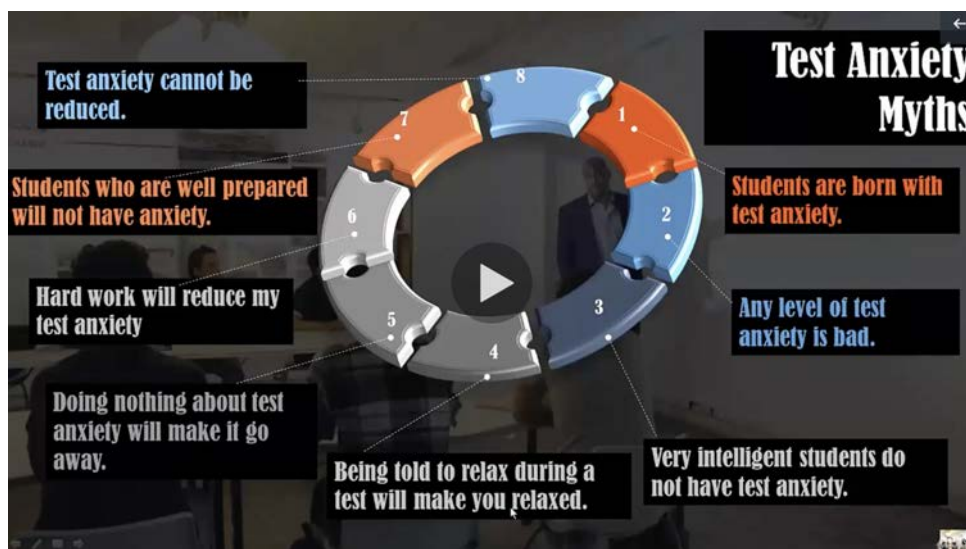


Figure 3: Common Test Anxiety Myths.

After identifying manifestations of test anxiety — which may exemplify a fixed mindset — the instructor offers strategies to aid students in managing test anxiety. He suggests students to develop an effort and process-driven mindset in recognizing and addressing their emotional and behavioral responses in their IELTS preparation.

As regards the second avenue of research mentioned above, it is interesting to note that the instructor himself considers intelligence as a fixed trait. When stating that the differences between top students and weaker students do not stem from their intelligence, he may implicitly consider intelligence as a fixed trait rather than a malleable quality. This idea is further supported in the course when he says “I have taught students who were not that smart” — which interestingly, happens in an affirmation, as a way to motivate students.

The two pieces of evidence above reveal that the instructor does not yet have a consistent understanding of the growth mindset; we therefore recommend aligning the conflicting thoughts and rectifying the ambiguous language with *Mindset* (Dweck, 2007).

2.4. Protégé Effect

The Protégé effect is a learning motivational theory that claims that people may invest more effort tutoring a protégé about knowledge and skills they do not completely understand and gain more mastery than if asked to learn the same material themselves. This motivational effect is both emotional and social because people have empathy with learners, pride and satisfaction in their protégé’s success, and personal responsibility when protégé fails (Dede, 2021).

In one study (Chase, 2009), low-achieving students tend to avoid difficult learning tasks or give up quickly due to the fear of failure while the teaching agent (protégé) creates a situation where the responsibility for failure is distributed between the teacher and the protégé, hence the students can better acknowledge failures and work harder to learn to address them.

In preparation for a high-stakes test, the protégé effect can be a meaningful motivation theory to incorporate in the design of the learning experience. Currently, the course platform contains a Q&A section below each of the course sections (see below). The Q&A function

provides an opportunity for the learners to raise questions instantly when they encounter a specific challenge or problem during a study session. Currently, the communication in the Q&A section is solely between the instructor and the learner.

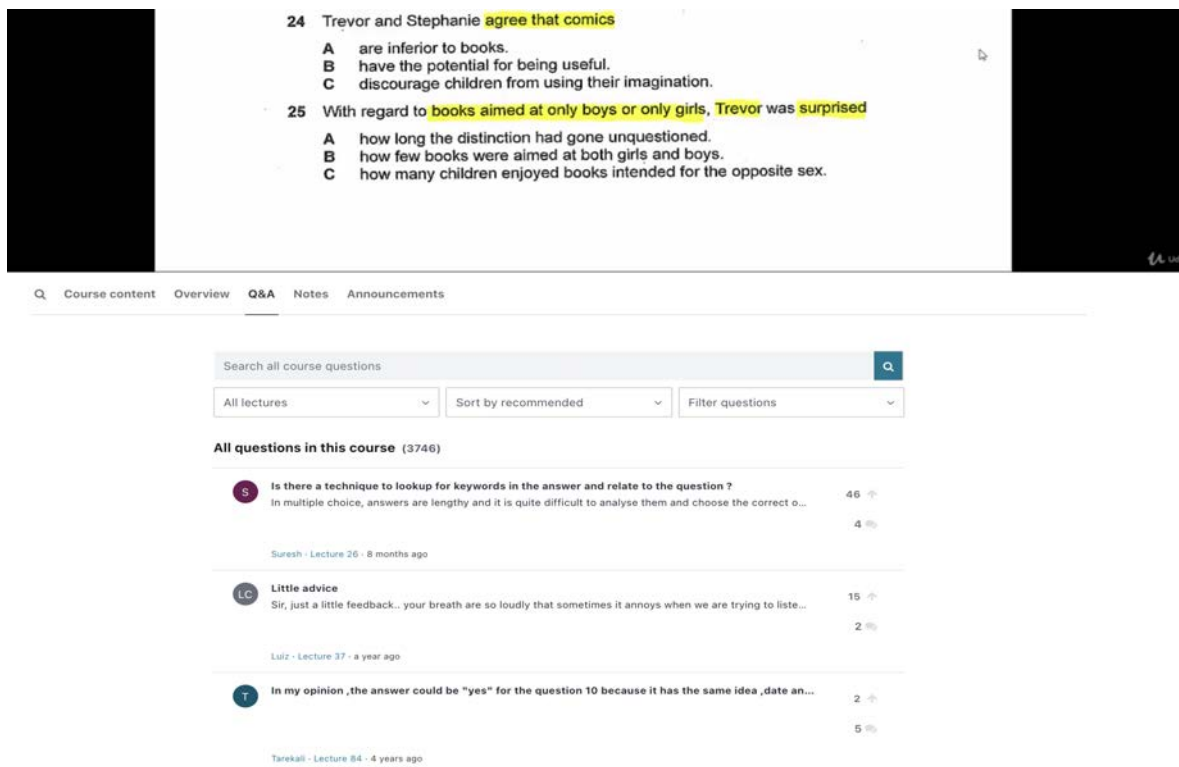


Figure 4: Course Q&A Function

In terms of the protégé effect, this Q&A section can potentially become a meaningful space for learners to answer each other's questions, resolve problems, and attain mastery. Also, learners preparing for a high-stakes exam, especially in an online environment can feel isolated. Therefore, as in many other places in this analysis, social engagement with peers is our recommendation to the course designer as a means of improving motivation (Croft et al., 2010).

In addition to the Q&A function, one other possibility is also social by nature and consists in incorporating peer support: either by giving students time during the monthly live zoom session or by assigning a partner as a protégé to support mutual learning and become more motivated through peer engagement. There are already role models, e.g. the Learning Community Project (LCP) in Mexico (Rincón-Gallardo and Elmore, 2012). A possible limitation of this recommendation is whether peer tutorials like those in LCP are as effective online as in a face-to-face context.

2.5. Learning Dispositions

The learning experience affects at least two learning dispositions pertaining to drive and motivation: 'grit', or persistence, and openness to problem-solving. The former was briefly mentioned as benefitting from a student's growth mindset, but in this Part, we are going to further explore the connection between persistence and the content of the course. As the PISA 2012 (OECD, 2013, p. 64) report states, 'If students never encounter failure and are never challenged they will be unable to develop the stamina, perseverance, and motivation

that are needed to thrive in difficult conditions.‘ However, the course offers worked examples of IELTS tasks presented by the instructor, with very limited opportunity to check one’s work and subsequently know if you failed or not. Thus, the MOOC we consider in this paper could be improved by giving the students a chance to practice the questions and at least learn whether they were successful.

The other learning disposition that could be better supported is openness to problem-solving. In the course, there is no task that is open-ended or ‘requires students to think for a long time,’ which is associated with both higher perseverance and openness to problem-solving (OECD, 2013, p. 187). Another useful recommendation in this respect would be to include a tool to help students learn from, very much in line with *Mindset* (see above).

2.6. Engagement and Social identity

With the increasing popularity and enrollment of MOOCs, there is continuing attention to educational equity and the completion rate gap between affluent populations and those less well-off. In (Kizilcec et al., 2017, p.251), the authors point out that members of underprivileged groups “may suffer from the cognitive burden of wrestling with feeling unwelcome while trying to learn and, therefore, underperform.” Social identity threat refers to “the fear of being seen as less capable because of one’s group,” and it can impair learners’ working memory, learning, and performance (Kizilcec et al., 2017, p.251). This piece of research is particularly insightful in regard to the suggested activities to lessen social identity threat.

The article suggests two different interventions to improve students’ engagement with the course, one aimed at social belonging and one at value affirmation. In performing the former, we ask the student to reflect on the fact that most students feel that they may feel alien to the course while the latter asks the student to connect the content and usefulness of the course to their personal values. In the course survey at the beginning of each MOOC in the research, the learners completed a writing activity to affirm their cherished personal values, such as relationships with family, and reflect on how taking the course reflects and serves their values. For example, in the study, one learner wrote “I need this course mostly for changing my career, which will help me spend more time with family” (Kizilcec et al., 2017, p.251). In addition to value-relevance affirmation, the study also incorporated social-belonging intervention, which assured learners that doubts about belonging in the course are normal, would pass soon, felt by many people, and with time everybody would become comfortable. Each of these two interventions increased the persistence of learners’ from less-developed or stereotyped groups.

In our analysis of this IELTS MOOC course, we find that unfortunately, this IELTS course does not use any of the interventions with its students, and does not have any survey at the start of the course, which leads us to our recommendation. Given that the learners for this course are English as a second— or even third— language speakers from all over the world, mainly from non-Anglophone settings, and may be stereotyped to have weak English ability, we can support these learners by helping them affirm their values and belonging by incorporating a pre-course survey. The survey can offer a space for the learners to write about their reason and goal for taking the course, reflections on the most important values, challenges they foresee in taking the course. This survey can also incorporate past students’ testimonies on how the challenges are not unique and were previously overcome.

2.7. MOOC Retention

As MOOCs provide learning opportunities to a global audience, retention remains to be a frequently studied topic, at around 10% retention for people in the developing world countries (Liyaganawardena, Adams, and Williams, 2013). In Kizilcec et al.'s (2017) study, social identity threat has been identified as one of the reasons for people from less-developed regions deciding to drop out from a MOOC course. In addition, based on Hone and Said's (2016) study, a post-MOOC survey for 379 participants from a developing country (Egypt) identified MOOC course content as a significant predictor of MOOC retention, mediated by its effect of content on the Perceived Effectiveness of the course. This research also shows that interaction with the instructor is important for learner retention and suggests that "MOOC providers need to think carefully about how to provide appropriate human interactive elements to their courses as well as excellent content" (Hone and Said, 2016, p.166). These two constructs explain a substantial percentage of the variance in retention. In our analysis, we will look at how the course content and social aspect impact the learners' motivation during the learning process.

Our focus of analysis is also supported by the large-scale research done by Gregori et. al's (2018) study which investigated learner support strategies for success and completion of MOOCs. In the study, such strategies are analyzed on three levels: student-content, student-student, and student-teacher interactions. According to this piece of research, the teachers' presence during the course, his or her interactions with students, and the quality of the videos presented are significant determinants of course completion. Amongst their other findings, unfortunately, the quality of MOOCs' course content and pedagogy is commonly thought of as low (Margaryan, Bianco, & Littlejohn, 2015). The research indicates that learner support in online learning has well-documented benefits according to the literature but largely overlooked in the instructional design of MOOCs; an important finding in regard to our main suggestion is that learners who participate socially and who collaborate in open social learning spaces perform better than students who work on their own.

For our analysis and for the purpose of improving or designing a new IELTS MOOC course, it is helpful to consider some of the other findings and suggestions offered in Gregori et.al's (2018) study: frustration (see an example in Part 3) can stem from poorly designed activities, such as discussions, arguments, posting in forums, ambiguous instructions and — importantly — the use of peer reviews. The other extreme which also causes dissatisfaction in students may be a lack of discussion in a forum, a lack of incentive to participate, insufficient prior knowledge, ambiguous assignments, and course expectations, and a lack of time due to personal priorities and commitments. As for instructors, useful strategies for maintaining their presence include commenting at the beginning of each module, reminding of the necessary resources, encouraging social participation in the forums so that students can improve their comprehension and collaboration, and staying present by acting as a figure who responds to students' concerns and suggestions and provides feedback on their comments.

What you'll learn

- ✓ Achieve learning outcomes for Band 7+ in every section
- ✓ Over 9,000 Confirmed 5-Star Reviews (*****)
- ✓ Increase Reading Answer Accuracy to Band 8+
- ✓ Know what IELTS Examiners want from Speaking and Writing
- ✓ Monthly Live GROUP Class with Real-Time Advice (Reading, Listening, Writing)
- ✓ Course Completely Updated in 2020 (Every Exam Section)
- ✓ Academic and General Exam Strategies and Tactics
- ✓ Computer Based Exam Strategies and Tactics
- ✓ Successfully overcome IELTS Listening Traps
- ✓ 20+ Assignments to Test Your Knowledge
- ✓ Time Management Strategies for Score Improvement

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Figure 5: Course Goals: What You'll Learn.

Considering these research findings in relation to our selected IELTS MOOC course, we argue that the instructor of this course does not consider the social aspect of learning to be a priority for this course. According to the course page learning goals listed above, we find that the instructor dedicated his thinking and time to the scope of the course content, which is undoubtedly one of the critical aspects for test takers. However, the learning experience matters because it improves learning outcomes when it comes with effective teacher-student and student-student support. We explore these aspects in more detail in Parts 3 and 4 with our personal learning experiences and other participants' testimonies.

3. Overall Assessment of the Experience

Based on our analysis and learning experiences, we believe that the selected MOOC course does not explicitly consider motivational theories in the course design, and in this paper, we have explored various ways this course can be improved in terms of motivation and learning.

One evident strength of this course is its clear way of tracking progress (progress bar). The diverse student body comes from a background with various life commitments and schedules, and this allows such learners to plan their individual learning journey based on their needs and availability. However, according to Gregori et al (2018), compared with online courses with pre-set weekly goals, one can argue that the self-paced function may lead to learners losing track of their studies without specific time-constrained goals, thus resulting in low course completion rates. We think it would be helpful to include neutral reminders throughout the course to help learners set their own learning progress goals and adjust them as necessary.

One strong selling point of this course is that it includes a complete set of teaching and learning materials as downloadable resources. The idea of purchasing a comprehensive IELTS knowledge and skills pack is attractive and motivating. Importantly, the course is

available (on the internet), accessible (with discounts), and convenient (with its desktop and mobile versions) to a wide range of learners.

Regarding the limitations, we argue that the core problems are situated in social learning, or rather, lack thereof. Currently, the course foregoes the opportunity to establish a way for the student and the instructor and/or peers to interact. Q&A is the place for students to discuss questions, but entries in this section remain short and mostly unidirectional. The monthly live zoom session is present but serves as an additional lecture with optional practice, where the instructor strictly forbids students to turn on the camera, let alone speak. Students do not know their peers who are taking the class, and there are no opportunities for students in such sessions to talk with each other. Hence, compared to offline classrooms, students lose meaningful opportunities to engage in peer learning, with all the devastating effects this often has on motivation.

Finally, the current edition of the MOOC does not seem to incorporate intrinsic motivation in the learning experience. The students in this course have to make do only with the extrinsic motivation of passing the high-stakes exam and reaching a band 7+ score in IELTS. They also try to win a 5-hour coaching prize, and at times achieve the target number of corrections in quizzes.

4. Conclusion

Our research team set out to find a way to make a popular MOOC better, and we carefully dissected the course with multiple theories of motivation. What we found is that despite its massive commercial success, much remains to be clarified regarding this learning experience, and some aspects of it need adjusting, see the paragraphs below for suggestions (made actionable wherever possible).

First and foremost, we recommend considering motivational theories in the learning design, and adding a social component, which is expected to be a significant improvement for the MOOC as it pierces multiple theories of motivation and learning/teaching. Another suggestion is to spurn all the extrinsic motivation and fixed mindset in the course. These main suggestions are shown in Fig. 2.8.

Before clarifying these, it is important to point out that they have associated costs for the instructional team. Another important consideration is that we agree that the IELTS score correctly reflects a person's English ability; admittedly, this is a simplistic view because of social identity threat (Aronson, 2009). To mitigate the possible effects of this threat is a difficult endeavor, but both the literature (Steele, 1999) and this paper make suggestions concerning this.

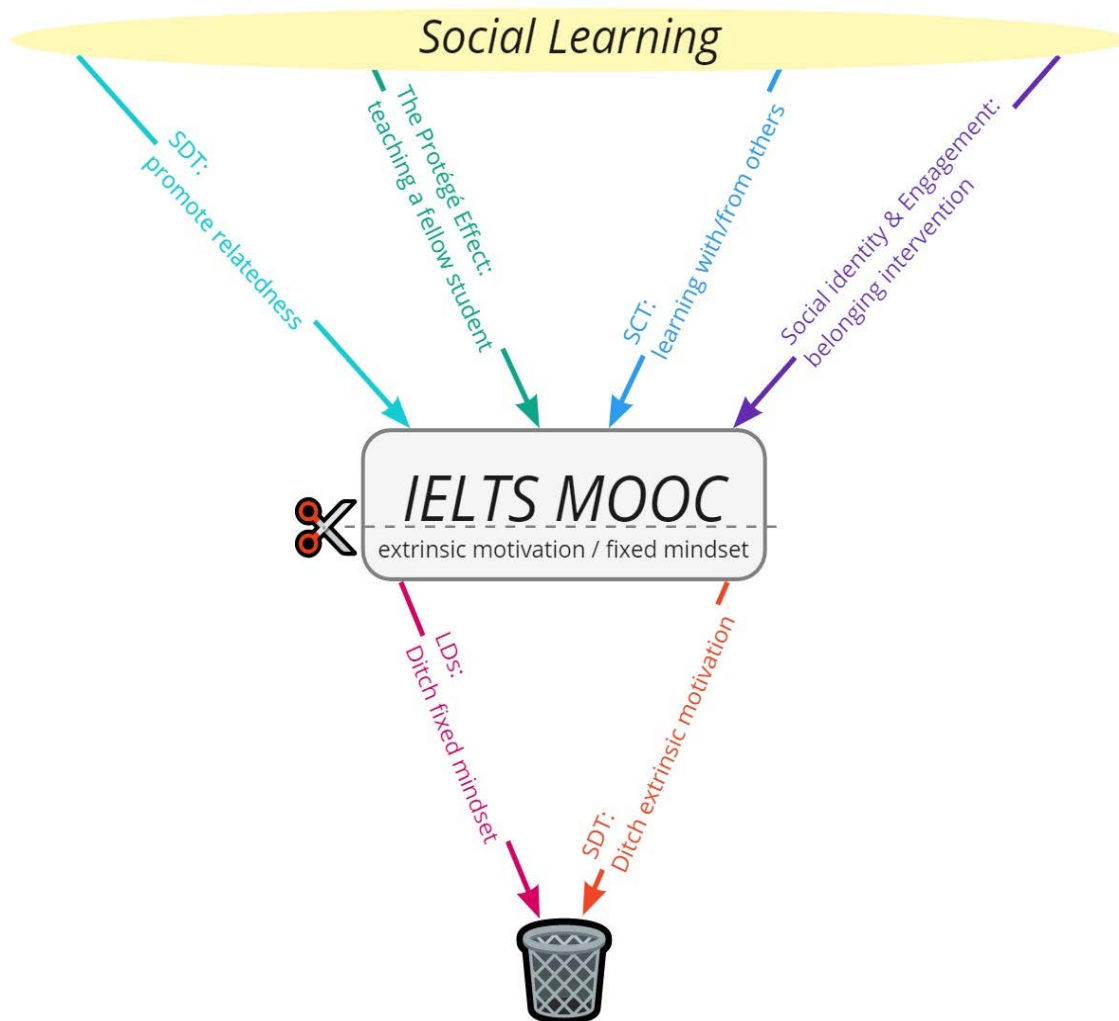


Figure 6: Main Suggestions for the Course.

SDT demands a clarification of the mixed messages this course sends concerning autonomy. It also suggests adding supports for relatedness including in live sessions as well as supports for competency in the form of personalization.

An SCT lens we employed helps us clearly see the MOOC needs to foster self-efficacy through vicarious learning from other students, which means a social component is recommended.

As regards Growth Mindset and Persistence, the instructor needs to recognize the student's growth not ability, but first, he would need to internalize this idea himself because now he does not model a growth mindset as an instructor. A suitable intervention would be to explain the difference between the mindsets and then update the content, connecting various ideas mentioned in the course, e.g. test anxiety, to *Mindset*.

The Protégé effect could manifest itself in an opportunity to tutor and coach others, e.g. in a live session. Organizing this practice may be very costly as this might mean hiring extra staff.

In terms of Learning Dispositions, persistence would benefit from an intervention based on *Mindset*. Another support here could be to include more tasks to work with, including

interactive ones. The second learning disposition, openness to problem-solving, benefits from a growth mindset, as well as open-ended tasks and projects.

Social Identity and Engagement could be promoted with the two interventions mentioned above: value-affirmation and social belonging affirmation. Value-affirmation could be promoted in a cost-effective way in a writing exercise where the student would be able to connect their values with the course, its content, and its completion. Social belonging could be promoted in a pre-course survey that could include a story of how a person with a similar background succeeded in a course after feeling alienated and ‘othered.’ However, an important thing to consider is that majority students may not benefit from this last intervention, and the course would need to be laser-focused in who it offers the intervention to.

In terms of retention, the course would benefit from the two mentioned affirmations. The research team also recommends removing ambiguous instructions from the course and making sure various aspects of the course (such as the repetitive style of instruction) are less frustrating to learners.

A few important questions — beyond the scope of this paper — arose during our research: whether the students in this MOOC do develop the necessary English skills (as indicated by their IELTS score) through the course experience; whether they use supports within or without the course; whether the nature of the overwhelmingly favorable course reviews is authentic.

Should the instructor of the UdeMy course decide to follow through with applying our suggestions, the course, with its added facility, support, and engagement, may shine a new light, a light to guide many more people on their academic and professional lives.

Acknowledgements

The authors would like to express their deep gratitude to Chris Dede, Timothy E. Wirth Professor at the Harvard Graduate School of Education, and his teaching fellows in the 2021 edition of the course named Motivation and Learning: Technologies that Invite and Immerse (T545).

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