

University assessment practices at level 1: Exploring student perceptions of fairness, transparency and authenticity

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The present study aimed to provide understanding of Level 1 undergraduate students' perceptions about three concepts: fairness, transparency and authenticity, in written exams/tests, group projects, and individual assignments. The sample ($N=187$) comprised students from the Faculty of Life and Physical Sciences at The University of Western Australia (four different Schools were represented), who were enrolled in their second semester, 2010. A two-part questionnaire was completed by students for each assessment mode (i.e., written exams and tests, group projects, and individual assignments). Part 1 was a series of scale response items. Students used a 7-point Likert scale ranging from 1 (*Not at all*) to 7 (*To a great extent*) to rate questions on fairness, transparency, and authenticity. Part 2 of the survey used open-ended qualitative questions that asked students to describe what they (a) liked, (b) disliked, and (c) would change about the assessment. The results confirmed that gender did not influence student ratings of fairness, transparency and authenticity. Exams were perceived to be significantly fairer than individual assignments, and were also perceived to be significantly more transparent when compared to group work and individual assignments. For exams and individual assignments, student perceptions about assessment appeared to be highly dependent upon the final grade they received for the assessment task. Students who obtained high distinctions perceived higher levels of fairness, transparency and authenticity than those who failed. With groupwork, similar results were found for ratings of transparency.

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Conference Themes:  Standards

Introduction and background

Evaluation practices have been shown to influence student attitudes and learning (Struyven, Dochy, & Janssens, 2005). Transparency has been identified, along with feedback, as the most important characteristic of assessment (Winning, Lim, & Townsend, 2005). Moreover, students have more positive attitudes towards multiple-choice tests on the grounds that they are easier to prepare for, easier to take, and may produce higher relative scores (Traub & McRury, 1990). Similarly, students' approaches to study influence the ways in which they perceive evaluation and assessment (Struyven et al., 2005). Students with good learning skills who have high confidence in their academic ability (Birenbaum & Feldman, 1998) and/or desire deep learning outcomes (Struyven et al., 2005) tend to prefer essay-based assessment rather than multiple-choice assessments. Whilst no gender differences have been reported for student perceptions of examination structure (Zeidner, 1987), others have reported that males have a preference for choice response examinations when compared to females (Birenbaum & Feldman, 1998). In short, students' perceptions of their learning environment are crucial in determining how they learn (Entwistle, 1991).

Carless (2009) discussed the importance of assessment in stimulating a productive learning environment that facilitates effective student learning. The present study aims to provide further understanding of undergraduate students' perceptions about different assessment modes. Specifically, their perceptions about three concepts: fairness, transparency and authenticity, in written exams/tests, group projects, and individual assignments. Consistent with the learning styles literature (Dunn, Beaudry & Klavis, 1989; Dunn, 1996; Dunn & Griggs, 2000; Fullan & Stiegelbauer, 1991; Gardner, 1993) students were also asked to identify assessment preferences by

asking what they liked and disliked about the assessment tasks. In this respect, this study aims to capture students' beliefs about the primary modes of assessment used at Level 1.

For the purpose of this study, *fairness* is defined as an assessment that rewards consistent effort and learning. Fairness comprises beliefs about the extent to which students perceive that they are able to demonstrate their capacity in terms of ability, knowledge and understanding. Fairness also encompasses whether the students feel the assessment reflects the teaching with which they are provided. Typically, alternative forms of assessment such as portfolios, self or peer assessment, and presentations have been perceived as fair as they reward consistent effort, rather than last minute effort (Sambell, McDowell, & Brown, 1997). The effort required to complete an assessment task is seen as criterion for fairness as it represents, in the student's eyes, a reasonable demand (Struyven et al., 2005).

Transparency relates to assessment methods with clear expectations and criteria that facilitate the achievement of all desirable student assessment requirements (Drew, 2001). It has also been shown that transparency is facilitated by using 'assessment criteria sheets' that assist students to understand the nature and scope of the assessment as well as how it will be marked (Waldrip, Fisher, & Dorman, 2009).

Authentic assessments simulate a real life situation, and measure skills and competencies valuable in real life or professional contexts (not just for the purposes of an isolated assessment). If an assessment task is perceived as arbitrary and irrelevant, there is a tendency for a students' study to be aimed at learning knowledge only for the assessment with no intention of maintaining knowledge in the long-term (Struyven et al., 2005). Therefore, in an effort to promote learning applicable in many contexts, the challenge for educators is to create assessments that simulate a real life situation whereby the student can clearly perceive the relevance of their academic work to a broader situation outside academia (Sambell et al., 1997).

Further understanding of these three concepts will help to provide teaching staff with an insight to the congruence (or lack of) between existing assessment methods and students' ideal assessment methods. Exploring students' perceptions on these concepts will also help staff to recognise perceived strengths and weaknesses of various commonly-used assessment modes. The specific aims of this study were:

- To measure students' perception of fairness, transparency, and authenticity across different modes of assessment.
- To identify aspects of different assessment modes that students liked, disliked, and/or would like to change.

Methods

Participants

The sample (N=187) comprised Level 1 undergraduate students from the Faculty of Life and Physical Sciences at The University of Western Australia (four different Schools were represented), who were enrolled in their second semester, 2010. The sample comprised 75 males and 112 females, and the sampling rationale was to recruit students who would have recently been exposed to a range of assessment methods within their first year of university study.

Measures

Demographic data including gender, degree programme, course unit, type of assessment and assessment mark were recorded. A two-part questionnaire was then completed by students for each assessment mode (i.e., written exams and tests, group projects, and individual assignments). Part 1 was a series of scale response items. Students used a 7-point Likert scale ranging from 1 (*Not at all*) to 7 (*To a great extent*) to rate questions on fairness, transparency, and authenticity. Example items included, "To what extent did this assessment reward your effort throughout the semester?" (fairness), "To what extent did you know what you had to do to get a good grade?" (transparency), and "To what extent was your assessment relevant to broader situations outside of the university setting?" (authenticity). Part 2 of the survey used open-ended qualitative questions that asked students to describe what they (a) liked, (b) disliked, and (c) would change about the assessment.

Procedures

At the beginning of a lecture, students were briefed about the questionnaire and its purpose. Students were informed that the surveys were anonymous and confidential, and that no identifying information would be

collected. The author in this project did not have any current teaching or assessment responsibilities for the student groups sampled. After obtaining informed consent from students, questionnaire completion took place over a period of approximately 10 minutes. Students were instructed to complete only the sections of the questionnaire that were relevant to them. For instance, if they had not completed a group-based assignment during their time at university, they were instructed not to complete the section on group-based work. Ethical approval for the study was obtained prior to the commencement of data collection (Approval RA/4/1/4460).

Data analysis

- Statistical analyses were carried out using SPSS version 19.
- Descriptive data are expressed as mean \pm SD for fairness, transparency and authenticity scores.
- Independent samples t-tests were undertaken to explore differences on student perceptions according to gender.
- A series of one-way MANOVAs were used to assess differences on fairness, transparency, and authenticity according to grade received for the assessment task (i.e., one MANOVA for each assessment modality).
- Paired sample t-tests were used to determine within-person differences on perceptions of fairness, transparency, and authenticity across assessment modalities.
- Qualitative comments about what students liked, disliked or would change about each assessment were categorised under fairness-, transparency- or authenticity-related themes.

Results

Quantitative findings

Table 1. Mean scores and standard deviations for each concept, for the whole sample and separately according to gender

	Fairness	Authenticity	Transparency
Whole sample ($N = 187$)	4.79 \pm 1.07	4.61 \pm 0.97	4.90 \pm 1.08
Male ($n = 75$)	4.85 \pm 1.01	4.52 \pm 0.83	4.81 \pm 1.11
Female ($n = 112$)	4.76 \pm 1.12	4.67 \pm 1.05	4.79 \pm 1.06

Across all assessment types, paired sample t-tests revealed that students rated fairness and authenticity significantly differently, $t(184) = 2.67$, $p = 0.008$, with the mean for fairness exceeding the mean score for authenticity. In addition, students rated their Level 1 assessments higher on transparency in comparison to authenticity, $t(184) = 2.43$, $p = 0.016$. Independent samples t-tests indicated that there were no significant differences on fairness, transparency, or authenticity according to gender.

Table 2. Mean scores and standard deviation for each concept according to assessment method

	Exams ($n = 176$)	Group ($n = 73$)	Individual ($n = 141$)
Fairness	4.96 \pm 1.18	4.87 \pm 1.28	4.65 \pm 1.37
Transparency	5.12 \pm 1.24	4.80 \pm 1.33	4.45 \pm 1.47
Authenticity	4.56 \pm 1.11	4.67 \pm 1.08	4.72 \pm 1.26

Group means and standard deviations for each variable (fairness, transparency and authenticity) are summarised in Table 2. For fairness, paired sample t-tests showed that exams were perceived to be significantly fairer than individual assignments, $t(130) = 4.21$, $p < .001$. Exams were also significantly more transparent than groupwork,

$t(71) = 2.93, p = 0.005$, and individual assignments, $t(129) = 6.17, p < .001$. However, no differences were found for students' perceptions of authenticity across assessment types.

The mean for each concept according to the students' final grade are summarised in Figures 1, 2 and 3. Figure 1 provides a summary of how students' perceptions about exams differed according to the grade they received. For exams, a significant multivariate effect, $F(12, 420) = 8.17, p < .001$, indicated differences on student perceptions according to grade received. Follow-up analyses indicated significant differences for fairness ($F(4, 161) = 20.04, p < .001$), transparency ($F(4, 161) = 13.28, p < .001$) and authenticity ($F(4, 161) = 10.89, p < .001$) according to the grade received. In comparison to those who failed the assessment task, students who obtained high distinctions reported higher perceptions of fairness (3.41 versus 5.58), transparency (4.10 versus 5.93), and authenticity (3.03 versus 4.87).

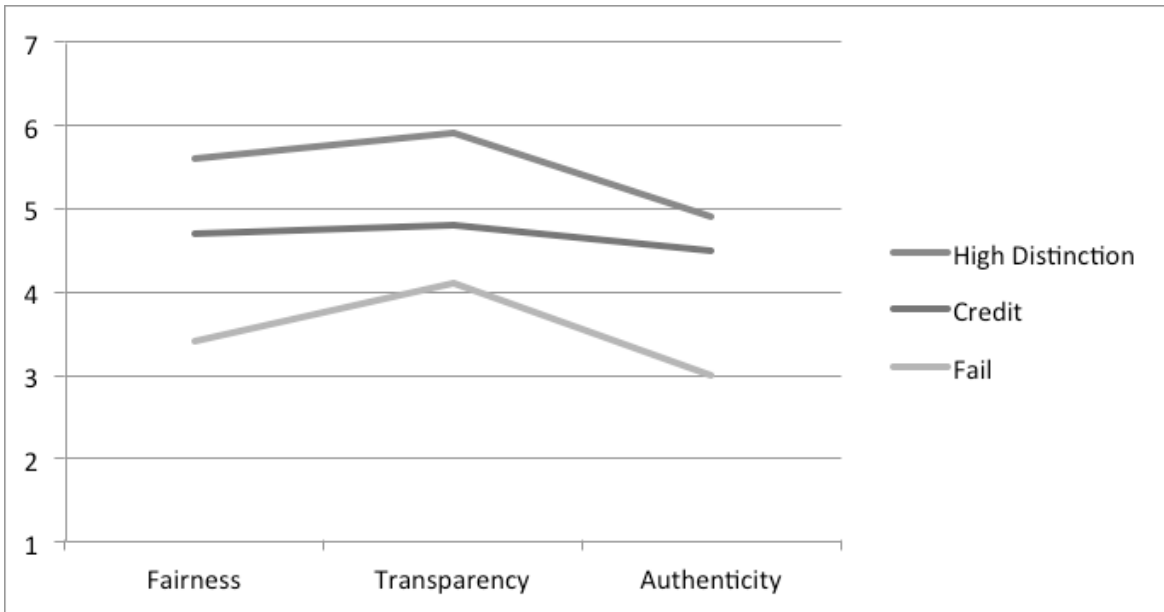


Figure 1. Differences on student perceptions about exams according to grade received

Figure 2 provides a summary of how students' perceptions of groupwork differed according to the grade they received. For groupwork, a significant multivariate effect, $F(9, 124) = 2.24, p = .024$, again indicated differences on student perceptions according to grade received. However, follow-up analyses revealed that only transparency was significantly different ($F(3, 53) = 3.38, p = .02$) according to grade received. There were no students who failed groupwork assessment. Students who obtained a high distinction for groupwork reported higher perceptions of transparency than those who received a pass mark (5.43 as opposed to 3.42).

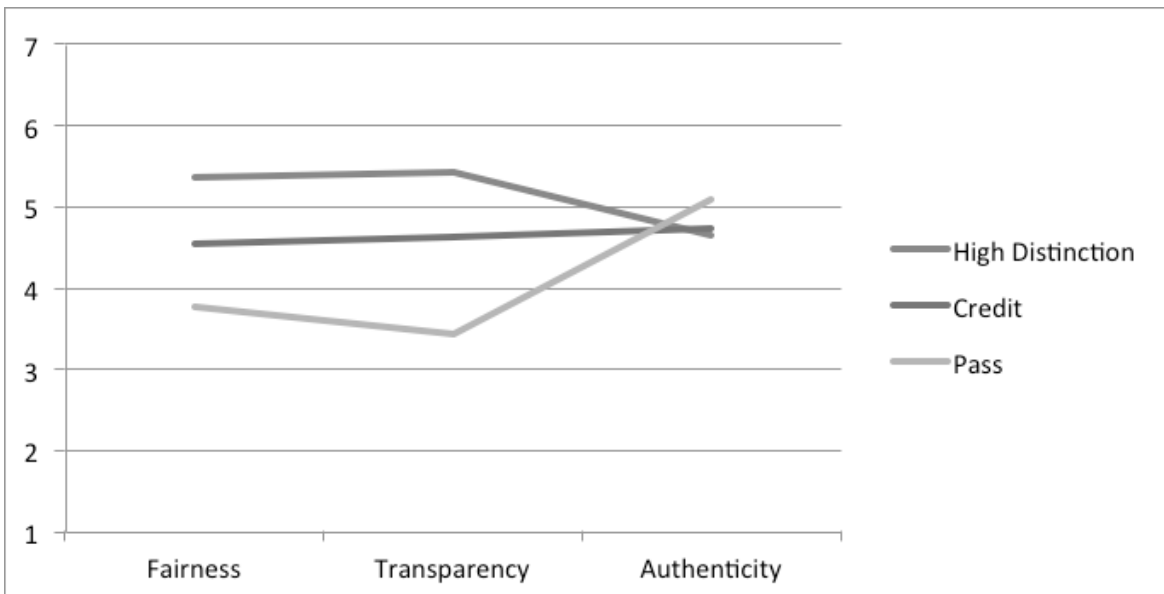


Figure 2. Differences on student perceptions about groupwork according to grade received

Figure 3 provides a summary of how students' perceptions of individual assignments differed according to the grade they received. For individual assignments, a significant multivariate effect, $F(12, 320) = 7.13, p < .001$, again indicated differences on student perceptions according to grade received. Follow-up comparisons indicated significant differences for fairness ($F(4, 123) = 26.80, p < .001$), transparency ($F(4, 123) = 25.23, p < .001$) and authenticity ($F(4, 123) = 7.13, p = .001$) according to the grade received. In comparison to those who failed their individual assignment, students who obtained high distinctions reported higher perceptions of fairness (2.75 versus 4.66), transparency (2.67 versus 4.40), and authenticity (3.50 versus 5.16).

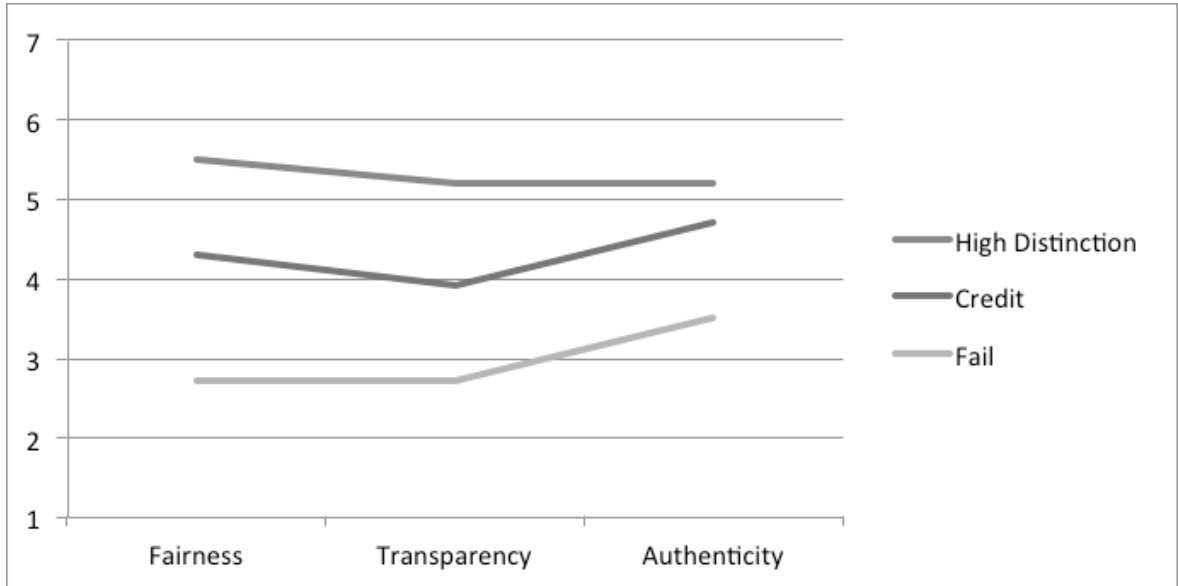


Figure 3. Differences on student perceptions about individual assignments according to grade received

Qualitative Findings

Eighty-one percent of students ($n = 151$) provided qualitative feedback. This feedback was categorised into comments about each concept.

Fairness

Of the 151 students that responded, there were 132 comments pertaining to fairness (42% of all comments). Of these comments, 56% reflected positive comments, or things that students 'liked' about the assessment. For example:

- *Good broad range of questions, rewarded people who used the textbook and lectures*
- *Able to demonstrate understanding*
- *Tested our skills, very challenging*

The remaining 44% of comments reflected negative comments, or things that students 'disliked' about the assessment. For example:

- *Exam had 12 questions to trick students, didn't allow us to show enough of what we actually knew*
- *Too much work for too little marks. Unfairly weighted assessment*
- *The hardness of marking. Went from 77% first sem to 46% second sem for same quality of work*

Transparency

There were 71 comments pertaining to transparency (22% of all comments). Of these comments, 27% were associated with aspects of the assessment students 'liked'. For example:

- *Clearly set out, knew what to do for each section*
- *Questions clearly described what we were to write and calculate in our report*
- *Mock exam was very similar to final, so was easy to study for and prepare for it - knew what was required*

The remaining 73% of comments were associated with aspects of the assessment students 'disliked'. For example:

- *Instructions about exactly what needed to be included were not clear*
- *Lecturer and tutor were not willing to help me with feedback/ questions*
- *Guidelines weren't very clear. Different information was being given by different sources (e.g. lecturers vs tutors)*

Authenticity

There were 62 comments pertaining to authenticity (20% of all comments). Of these, 90% of comments were associated with aspects of the assessment students 'liked'. For example:

- *It aimed to give us practise in something we would need to do in the future, not only for psych but in some other units*
- *Reasonably relevant to wider world*
- *It applies to a greater context - careers after uni. Forced to learn about our field of work and learn a vital tool in preparing for when you're seeking jobs*

The remaining 10% of comments were associated with aspects of the assessment students 'disliked'. For example:

- *Not applicable to real life/ current situation*
- *Lack of relevance*
- *Writing out 'code' is tedious and a counterproductive way to learn (real world is never like that)*

Other Themes

Beyond the three concepts, there were 52 comments about assessment format (16% of all comments). Of these, 65% were associated with aspects of the assessments that students 'liked'. For example:

- *Ability to adjust marks to reward individual group members who put in more effort*
- *The multiple-choice format, as it is easy to study for and complete*
- *All multiple-choice and there was always a chance of getting the answer right*

The remaining 35% were associated with aspects of the assessments students 'disliked'. For example:

- *Hard to allocate tasks to each group member equally*
- *Was difficult to do in a group because if one part isn't done, another part can't be done, hard to divide workload, therefore very time consuming*
- *That it was all multiple-choice, it didn't use short answer questions or long answer*

Conclusions

This project sought to contribute to a better understanding of the way in which students perceive fairness, transparency, and authenticity in different modes of assessment. In summary, findings provide support for the following propositions:

1. Gender did not influence student ratings of fairness, transparency and authenticity.

Exams were perceived to be significantly fairer than individual assignments. They were also perceived to be significantly more transparent when compared to group work and individual assignments. The high rating of fairness for exams may reflect an improvement on traditional 'end-point' exams. The exam format (e.g. the combination of multiple-choice and short answer questions) often used for Level 1 UG students may be perceived as a better opportunity to test knowledge. This may also be influenced by the Level 1 UG student having exams in combination with a number of other assessments (e.g. reports and quizzes) throughout the semester. The finding that exams were perceived to be more transparent than group work or assignments may be as a result of the students' experience with each assessment mode and, simply, their understanding of what was expected from them. The students' relatively positive perception of exams when compared to other assessments, whilst consistent with other findings (Struyven et al., 2005), is potentially an expression of student's referencing surface learning over deep learning outcomes and distrust for other forms of assessment (Carless, 2009). Alternatively, in comparison to exams, it is possible that groupwork and individual assessment tasks may be presented to students in a manner that does not explicitly identify expectations.

Consistent with existing work (Wachtel, 2006), student perceptions about exams and individual assignments appeared to be highly dependent upon the final grade they received for the assessment task. Students who obtained high distinctions perceived higher levels of fairness, transparency and authenticity than those who failed. With groupwork, similar results were found for ratings of transparency. It was not possible to determine in this study whether higher perceptions of fairness, transparency, and authenticity actually caused (i.e., preceded) improved final grades, or whether the receipt of a high grade lead students to retrospectively perceive the assessments as fair, transparent, and authentic. Future research that examines this issue would be worthwhile.

Implications for practice

In a general sense, these findings may provide some indication of what factors influence students' perceptions of the primary modes of assessment used at Level 1. The finding for differing perceptions of assessment according to students' grade classification is noteworthy. In particular, this suggests that students' academic achievements may influence their perceptions of assessment, and lends support to the findings of others (Sambell & McDowell, 1998; Wachtel, 2006), who reported that students' achievements, motivation and orientations to study influenced the ways in which they perceived and acted upon messages about assessment. These findings may have potential implications for student ratings of teaching excellence and unit reviews. Accordingly, stratifying students' evaluations according to grade achieved may provide a more comprehensive understanding of their course and unit evaluations.

It seems unrealistic to expect teaching staff to present 'ideal' assessments for every student, given the unique learning styles and preferences held by each undergraduate (Winning et al., 2005). However, attempting to find patterns, tendencies, and relationships between students' perceptions, the different assessment methods, and student learning, helps to provide an insight for teaching staff (Struyven et al., 2005).

Improving student perceptions of fairness, transparency and authenticity

Perceptions of fairness could potentially be improved by using a variety of assessment modes to maximise students' opportunities to demonstrate their learning (Struyven et al., 2005). The allocation of marks for each assessment should reflect the time and effort required to competently achieve the learning outcomes specific to the assessment, rather than having a large proportion of marks allocated to what students may perceive to be redundant tasks such as referencing. In addition, groupwork should include ways to assess individual performances within the group (e.g. peer and self assessment) to better reward students who undertake a greater proportion of work (Biggs, 1999).

To improve transparency, students need to have a clear understanding of the nature and scope of the knowledge required to successfully complete the assessment. Transparency can be facilitated by open communication between tutors, lecturers and students, so that students' perceive they have some control over and trust in the assessment process (Carless, 2009; Winning et al., 2005). Transparency has also been shown to be improved by providing students with clear assessment criteria, briefs, or marking rubrics that are explicitly linked to the defined learning outcomes (Anderson, Blanksby, & Whipp, 2005; Rust, Price, & O'Donovan, 2003; Whipp, Anderson, Yeo, & Tan, 2006).

Authenticity is improved when students perceive the assessment as having application to situations beyond the immediate university assessment. For the educator, this requires them to determine what students and potential employers perceive to be the 'real world', and whether this is congruent to the learning outcomes and assessment (Biggs, 1999; Carless, 2009).

Finally, the majority of students enjoy multiple-choice based assessments. However, a common criticism is that they do not allow the demonstration of higher-order understanding. Combining multiple-choice based assessments together with short answer or essay questions would potentially serve to alleviate this issue (Biggs, 1999).

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