

Use of Contract Grading for an Introductory Pharmacy Practice Experience

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INTRODUCTION

- Contract grading is an assessment method where preceptors develop criteria to enable students to earn specific grades and share those with students at the onset of the learning experience.^{1, 2, 3, 4}
- Students decide the grade that they are willing to work for based on the amount and type of work they are willing to undertake.^{1, 2, 3, 4}
- Contract grading fosters learning through mutually agreed upon student-preceptor goals providing transparent assessment.^{1, 2, 4}
- Contract grading has been used in the pharmacy didactic curriculum (pharmacotherapy laboratory course, pharmaceutical care skills, and pharmacy communication courses).^{2, 5, 6}
- This concept has not been reported in the pharmacy experiential education setting despite being used in clinical experiences for nursing students.³
- Assessing introductory pharmacy practice experiences (IPPEs) poses challenges for preceptors and students to determine if students earned a Pass or Pass+ grade.

OBJECTIVES

- Hypothesis: employing contract grading to assess a 3-week Institutional IPPE experience enhances grading clarity, ensures equity, integrates student experiences, facilitates learning, and empowers students
- Aims were to gather student feedback on the strengths and limitations of contract grading and compare perceptions between students that utilized contract grading during IPPE (Group 1) and those that did not (Group 2)

METHODS

- Albany College of Pharmacy and Health Sciences (ACPHS) Institutional IPPE 3-week summer experience following 2nd Professional year (P2)
- Preceptor takes 4 rotations each summer, 5 students each rotation session
- Contract Grading Agreement**
- The contract grading session at the AACP Virtual Pharmacy Education 2021 meeting inspired utilization of contract grading for an experiential education offering.⁷
- The contract grading rubric was developed by assessing previous rotation assignments and the college's required Institutional IPPE objectives to determine the minimum competencies required (Table 1)
- Presented contract grading information to students on the first day of rotation while reviewing the syllabus.
- Students could alter their grade contract up until the midpoint evaluation.

Contract Grading Survey

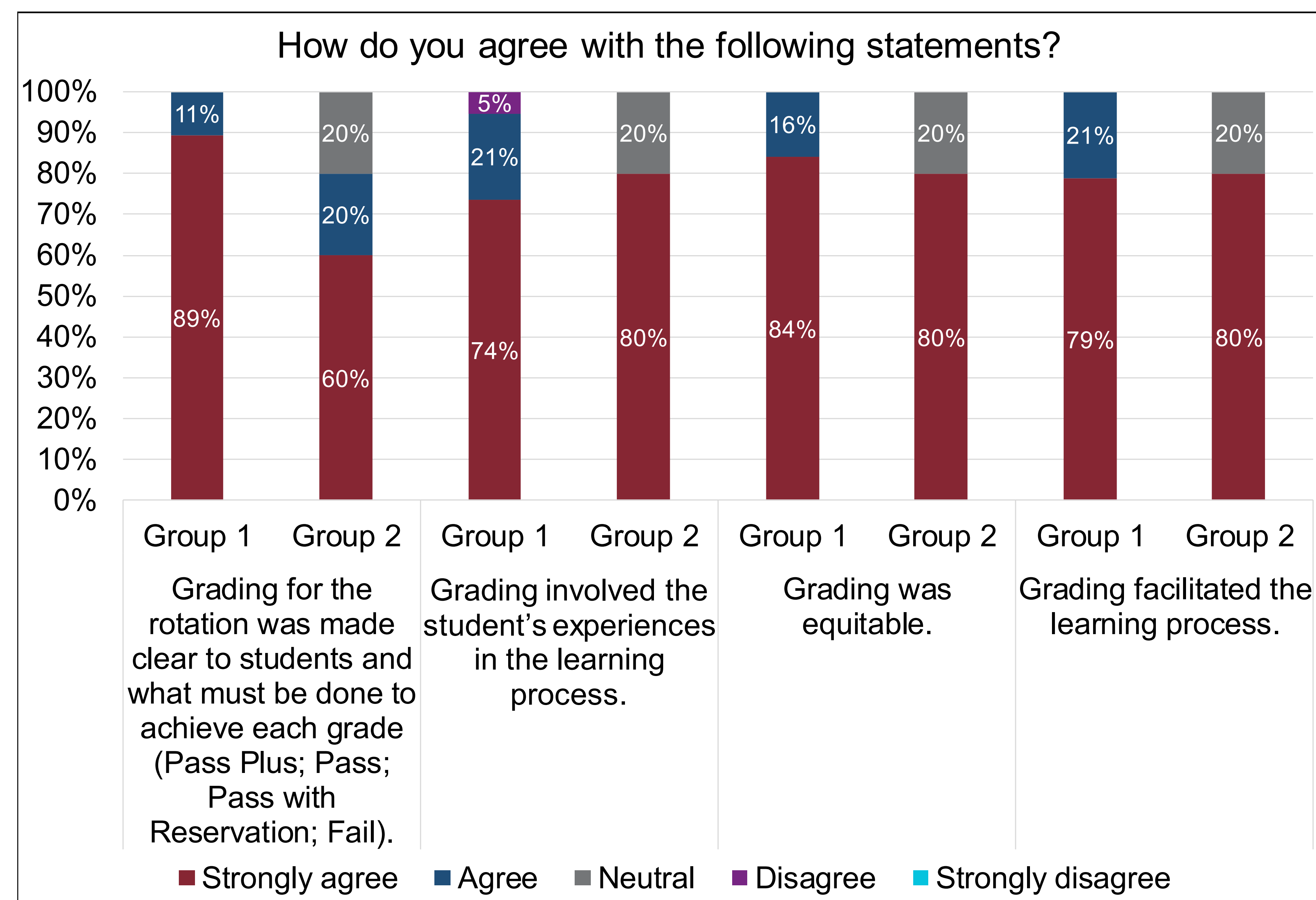
- Anonymous Microsoft survey emailed to Summer 2023 Institutional IPPE students at two faculty practice sites
 - Group 1 (n = 20): students utilized contract grading during IPPE; survey distributed in September 2023
 - Group 2 (n=15): students did not utilize contract grading during IPPE; survey distributed in February-March 2024
- Survey questions included: 5 multiple choice, 2 Likert scale, 3 open-ended questions
 - Contract grading hypotheses developed by Hardigan were adapted for 1 survey question⁵
- Descriptive statistics were used with abbreviated qualitative analysis for open-ended responses

Table 1: Contract Grading Rubric

	Pass Plus	Pass	Pass with Reservations	Fail
Rotation Assignments	Completes all assignment requirements: • Workbook • Adverse Drug Reaction-10 • Journal Club • Informal Patient Case and Medication Review • Infographic • Self-Directed Continuous Professional Development • Success Skills • Topic Discussion	Completes all assignment requirements: • Workbook • Adverse Drug Reactions-5 • Journal Club • Informal Patient Case and Medication Review • Infographic	Does not complete one assignment requirements: • Workbook • Adverse Drug Reaction-5 • Journal Club • Informal Patient Case and Medication Review • Infographic	Does not complete more than one assignment requirements: • Workbook • Adverse Drug Reactions-5 • Journal Club • Informal Patient Case and Medication Review • Infographic
Attendance (on time and does not leave)	1 warning	2 warnings	3 warnings	4 warnings
Professionalism (according to group contract from first day of rotation)	0 warnings	1 warning	2 warnings	3 warnings

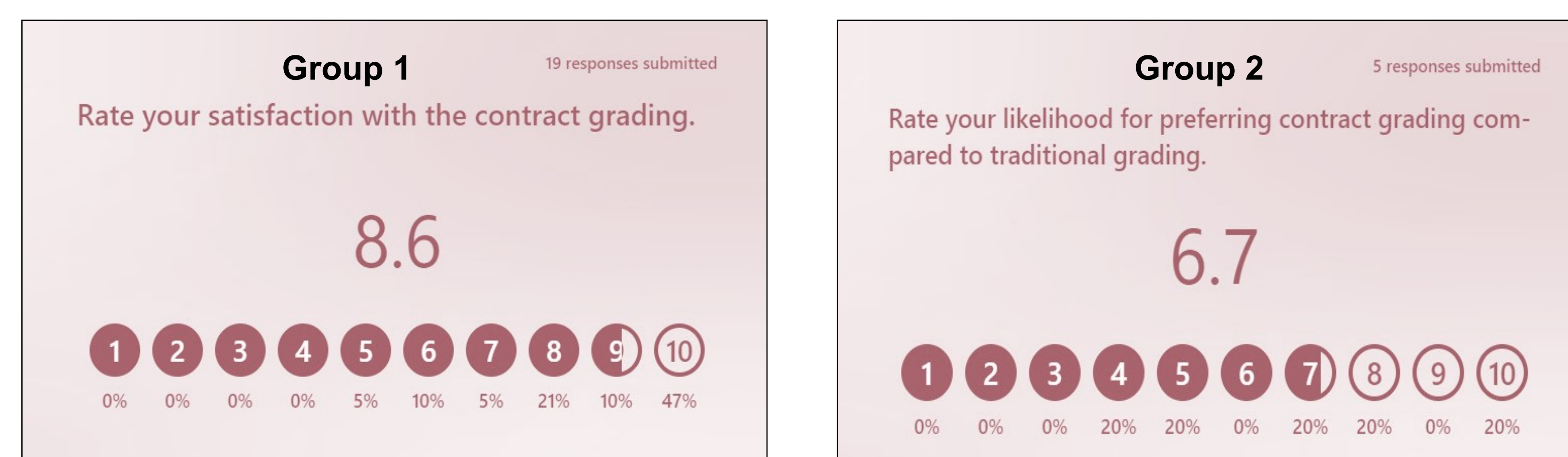
*Note: This grade contract can be altered at any time up until the midpoint evaluation by submitting a new copy to preceptor via email.

Figure 1: Students Perception of Contract Grading



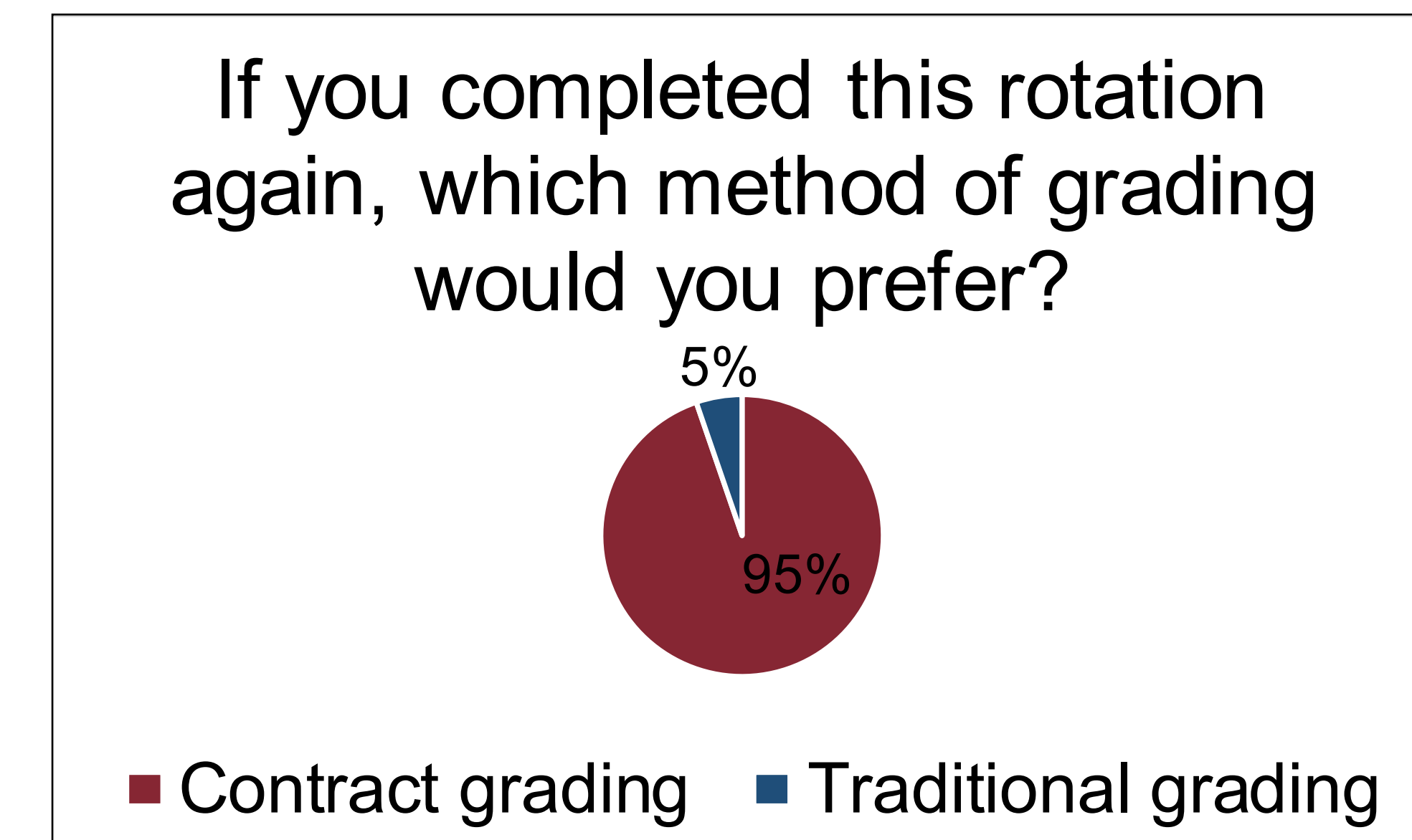
Group 1 (n = 19): utilized contract grading
Group 2 (n = 5): did not utilize contract grading
Survey question adopted from Hardigan 5

Figure 2: Students Satisfaction with or Likelihood for Preferring Contract Grading



1. McFarland MB. Contract grading An alternative for faculty and students. Nurse Educator. 1983; 3-6.
2. Berger BA, Felkey BG. Use of contract grading in a required pharmacy communications course. AJPE 1987; 51: 121-126.
3. Schoolcraft V, Delaney C. Contract grading in clinical evaluation. Journal of Nursing Education. 1982; 21 (1): 6-14.
4. Logan NS, Lainsou PA, Lewis LA, Bergquist JJ. An application of contract grading. Journal of Dental Education 1975; 39(10):666-669.
5. Hardigan P. Investigation of learning contracts in pharmaceutical education. AJPE. 1994; 58: 386-390.
6. Gallimore C, Barnett SG, Porter AL. Evaluation of pharmacotherapy laboratory revisions implemented to reduce cost. AJPE 2012; 76 (4).
7. DeSimone EM. Con3. tract Grading. AACP Virtual Pharmacy Education 2021 Meeting.

Figure 5: Preferred Assessment Method for Institutional IPPE: Group 1



RESULTS

- Response rate: Group 1 95% (19/20); Group 2 33.3% (5/15)
- 95% of students in Group 1 and 75% of students in Group 2 expressed "strongly agree/agree" that contract grading is clear, equitable, incorporates student experiences, and facilitates learning (Figure 1)
- 100% of Group 1 students felt empowered in their learning while 60% of Group 2 students would feel empowered using contract grading
- Group 1 students who participated in contract grading during their Institutional IPPE: 50% selected Pass Plus (10/20) and 50% selected Pass (10/20). 100% of Group 2 students indicated they would have selected Pass Plus for their grade.
- In Group 1, 15 students rated their satisfaction score $\geq 8/10$ (Figure 2)
- Strengths highlighted the ability to "choose the goal" and "fully visualize the responsibilities" with "no surprises" (Figure 3)
- Limitations included "extra stuff could dissuade" students who might "underestimate themselves" and "lack of accounting for clinical performance" (Figure 4)
- 95% of Group 1 students would prefer contract grading over traditional grading if they completed this rotation again (Figure 5)

DISCUSSION

- The preceptor identified several benefits and challenges with the use of contract grading during an Institutional IPPE.
 - Benefits: enhance motivation for learning, provide clarity, ensure equity, and minimize grading anxiety.
 - Challenges: explaining new concept to students, assessing quality of work, and modification of grade after established deadline.
- Future considerations include students choosing their own assignments from a list of options, need to take individual's effort into account, and develop rubrics to assess quality of assignments.

CONCLUSION

- Students perceived contract grading use during IPPE results in clear, equitable grading enabling students to define and pursue their learning goals
- Future considerations: designed in collaboration with the students to prevent students from underestimating themselves and to integrate clinical performance

Figure 3: Student Feedback: Contract Grading Strengths

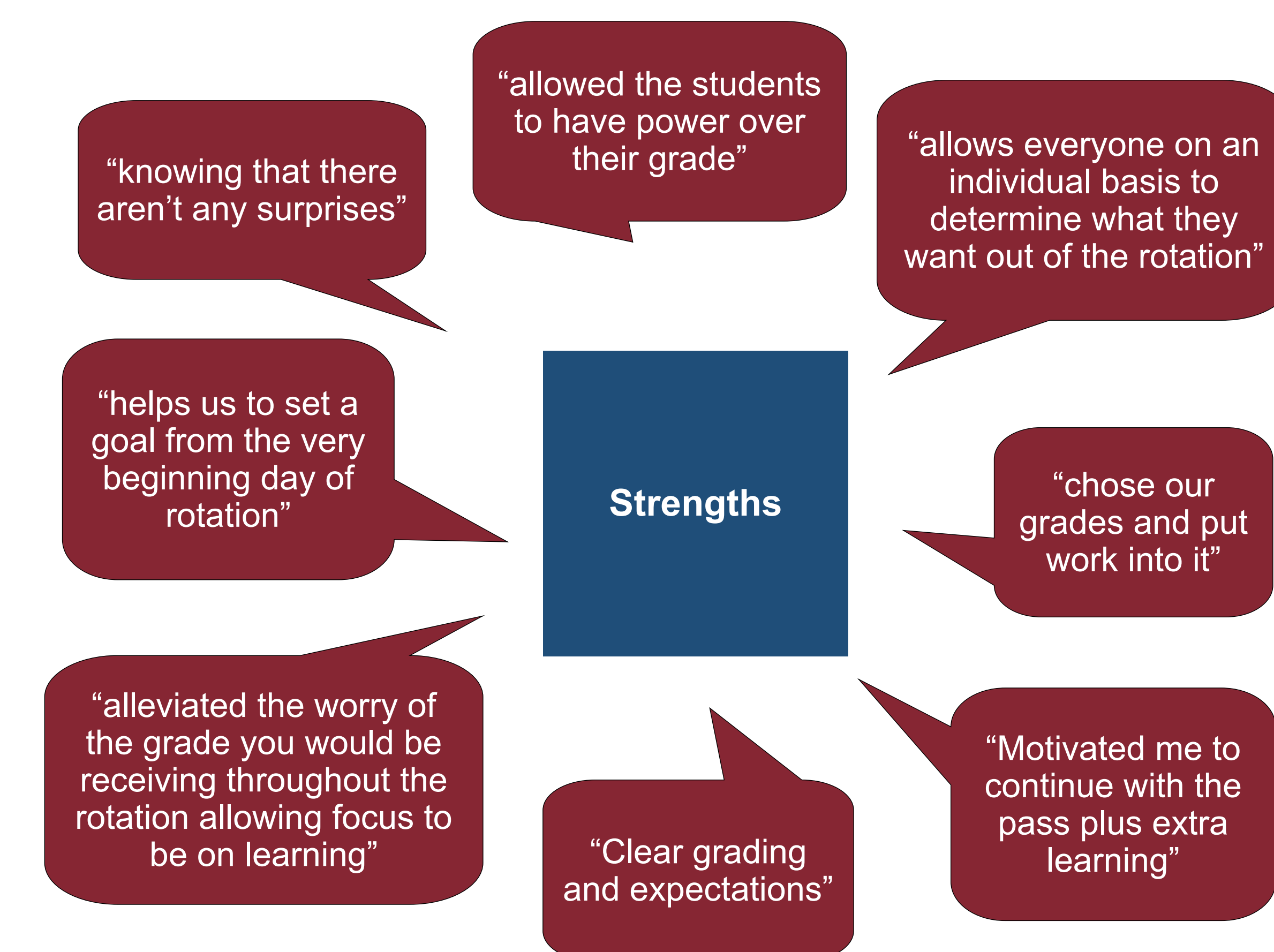


Figure 4: Student Feedback: Contract Grading Limitations

