

A Community of Practice: The Business of Developing Clinical Skills



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Introduction

A community of practice (CoP) is a situated learning environment, similar to an apprenticeship, where newcomers become oldtimers. Community members develop a cooperative learning history with a shared "repertoire, cases, techniques, tools, stories, concepts, and perspectives". (Wenger, 2011)

Methods

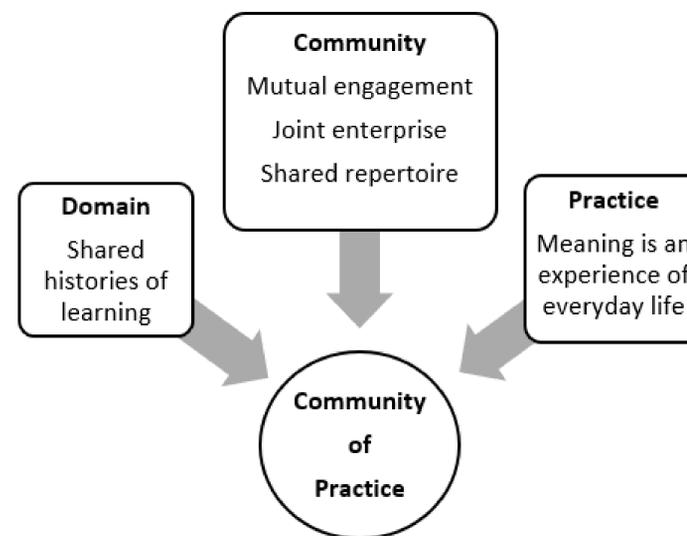
The Institutional Review Board exempted (AZ #1355) 2020 study involved an incidental population of third- and fourth-year dental students (N = 285) and resulted in a 43.5% response rate. The study was designed to answer the following questions: 1) How do CoP learning resources (faculty, staff, technology, and other students) affect learning in the CoP? 2) Does acquiring dental skill in the CoP affect students' perception of preparedness to enter the profession of dentistry? The online Community of Practice Assessment Scale, consisted of Likert-style, check box items, and one open-ended question. Survey responses were categorized as Strongly Agree (1), Agree (2), No opinion (3), Disagree (4), and Strongly Disagree (5). Univariate analyses and descriptive statistics were used to analyze study variables (domain, community, and practice)

Study Population

Characteristic	Percentage
Gender of participant	
Female	54.8%
Male	45.2%
Age range of participants	
20-24	5.6%
25-29	57.3%
30-34	25.8%
35 or older	11.3%
Class year in program	
D3	45.2%
D4	54.8%

Note. D3 third-year students. D4 fourth-year students.

Figure. Characteristics of the Community of Practice



Results

Overall, the learning domain was most strongly perceived by participants with mean scores ranging from 1.59 to 1.61. Responses assessing practices within the CoP had mean scores ranging from 1.72 to 1.90. Similarly, responses assessing the community ranged from 1.65 to 1.81. "Builds Knowledge and Shared Learning" was the characteristic participants most strongly agreed as beneficial with a 1.58 mean score. Participants agree that the CoP "Captures and Stores Tacit and Explicit Knowledge" with a mean score of 1.90. There was a 25.6% response rate to the open-ended question. Two themes evolved: the need for calibration and more shared learning

References

Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge university press.
Mills, D. A., & Bernstein, J. (2021). A community of practice in dental education: A phenomenon of newcomers becoming oldtimers. *Journal of Dental Education*.
Wenger, E. (1999). *Communities of practice: Learning, meaning, and identity*. Cambridge university press.

Conclusion

Based on study results participants strongly agreed or agreed in opinions about CoP learning resources (faculty, staff, technology and other students) benefitting their learning. The CoP provides an optimal environment preparing competent new dental professionals

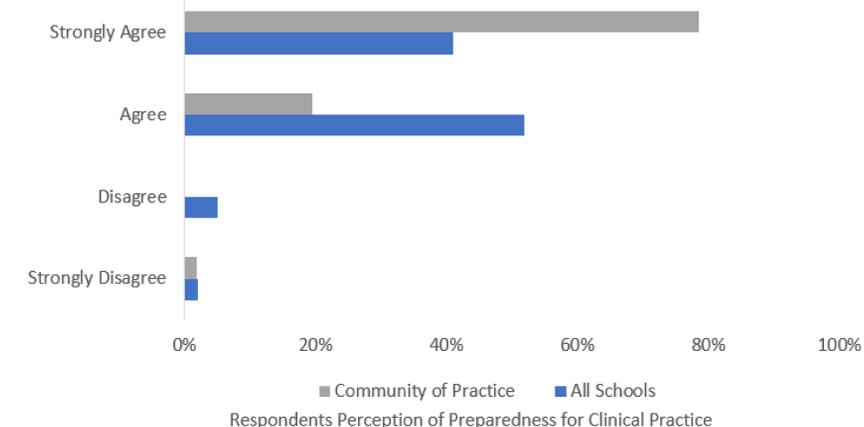


Figure. Results of survey administered to 2019 graduating seniors from all U.S. dental schools comparing CoP students' perceptions of preparedness for clinical practice to all other graduating seniors.

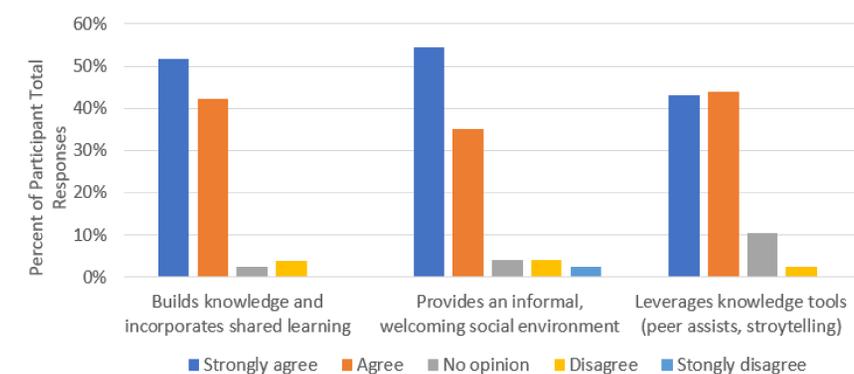


Figure. Most highly ranked characteristics of the domain, community, and practice.