



ISSN: 2456-0057

IJPNPE 2022; 7(1): 505-509

© 2022 IJPNPE

[www.journalofsports.com](http://www.journalofsports.com)

Received: 19-02-2022

Accepted: 26-03-2022

**Santosh Kumar Sharma**

Director, Department of  
Physical Education, Chintamani  
College of Science, Pombhurna,  
Chandrapur, Maharashtra, India

**Dr. Kuljeet Kaur Maheshchand Sharma**

Assistant Director, Department  
of Physical Education, Nevjabai  
Hitkarini College, Bramhapuri,  
Chandrapur, Maharashtra, India

## Evolution and verification of rubrics for professional development of physical education students of Indian Universities

**Santosh Kumar Sharma and Dr. Kuljeet Kaur Maheshchand Sharma**

### Abstract

The present study focused on to understand the extent to which new and existed measurement professional rubrics for industry readiness in the field of physical education. Based on the curriculum guidelines for assessment in Physical education, there are four aspects, viz., academics, sports, industry exposure and social responsibility, to assess the efficacy of physical education programs. First step in that process, the present paper introduced professional rubrics by identifying variables, selection of participants (N=250), development of rubrics, collection of data, computation of data, and applying statistical by using SPSS. Result and findings present the findings, whereas paper concludes with a discussion of the scale of measurement. The outcomes of the study present a list of rubrics, which is able to make true justification and determine the qualities of candidate.

**Keywords:** Physical education, stakeholders, rubrics, industry, readiness etc

### 1. Introduction

Education always been adopted to make human behavior better than never before in life span by changing, learning and adopting new skills (Kavanagh & Danielson, 2020). Physical education (PE) always plays major contribution to human evolution since origin from stone-age as adding skills to their daily life like standing, walking, running, jumping etc; research supports and adding physical and mental movement and skill to life span of human life since evaluation (HEFCE, 1999) [18]. This is major reason that educationist, expert and researchers adopted and respected physical education as separate from total education process in human's life (Evers, 2010) [13].

Etymologically the term Professional rise and accepted around the world in late 1800's and early 1900's. Professional means skill in hand and their maximum utilization of skill for professional growth for oneself and organization (Tellmann *et al.*, 2021) [30]. The need and significance of professionalism is equal in all industry, either it is business, education, engineering, manufacturing, production, service, sales, support etc. (Arana *et al.*, 2018) [4]. In physical education sector, it is equally important as total education process and commonly known fact that physical education deal with whole body, functioning and with all dimensions of human, so that demand of professionalism is also important (Bleske-Rechek *et al.*, 2004) [6]. Today, as similar to all other sectors physical education field also demand the same from candidate. All the organizations are also looking for the best suitable candidates for hiring. To do this, organization assesses the professional abilities of candidate with maximum available possibilities at the time of joining (Steppacher *et al.*, 2021) [28]. At the time of higher education, a student also going through many assessment procedure for being a good professional (Teane, 2021) [29]. Since last few decade it is notify that Indian government reform higher education policies according to meet the global industrial needs example National Policy on Education 2016; National Policy on Education 2020 (Tremble *et al.*, 2012) [32] and governing educational bodies implemented them and universities follow up them dedicatedly to produce good professional candidate in physical education (Tellmann *et al.*, 2021) [30].

In this context, Nobel laureate Amartya Sen raised their voice about the crisis in Indian education in their lecture in Lal Bahadur Shastri Memorial Lectures on 10-11 March, 1970 at

**Corresponding Author:****Dr. Kuljeet Kaur Maheshchand Sharma**

Assistant Director, Department  
of Physical Education, Nevjabai  
Hitkarini College, Bramhapuri,  
Chandrapur, Maharashtra, India

Hyderabad (Agarwal, 2006) [1]. MHRD (2016) also working on this contemporary issue and find-out some quality related deficiencies such as curriculum, lack of trained candidate, awareness, industry oriented knowledge and ineffective pedagogy (MHRD, 2016b). Frequently assessment by university (Michelsen *et al.*, 2017) [23] and assessment by industry (Herrmann, 2013) [19] applied on the candidate to make them industry ready (Cavanagh, 2011) [7], infect industries also putting efforts to assess the performance of candidates frequently for upgrade themselves. If assessment takes place at initial level i.e. under graduation level, it is much more effective to direct the student (Chajewski *et al.*, 2011) [8]. Bravranmps & Ory (1994), Caverlind (2005), Hiebert, Gallimore, & Stigler (2002) stated in their findings that the concept of assessment of student’s learning was emerged in 1960’s in American continent. Where the higher education students were assessed by different ways to examine their learning outcomes and abilities (Gorgon *et al.*, 2020) [15]. This study is focused to developed and validate the rubrics of assessment toolfor student learning outcomes.

The purpose of the present paper is to explore the rubrics for assessment tool, while the professional challenges and contradiction also keeps in focus (Tolgfors & Öhman, 2015) [31]. The rubrics are a framework that describes different levels of quality of an individual or any group(Andrade, 2000). In physical education, rubrics provide criteria for learning experience evaluation, accomplishment of educational goal, and constitute standardization for evaluating performance (Reddy & Andrade, 2010) [23]. Rubrics define benchmarking and standardization (Fox *et al.*, 2011) [14], guide teaching and learning process (Perlman & Karp, 2010) [22], standard and transparent evaluation process (Chen *et al.*, 2012) [9], potential to have advance learning (Chen & Rovegno, 2000) [10], equip student to self-assessment and other stakeholder assessment in physical education (Cohen & Zach, 2013) [11]. Rubrics have been used in physical education to analyze the industrial demand (Edwards, 2017), to assess student learning experience according to national standards(P. Hastie, 1998) [12], to contrast the pre-service quality of student (P. A. Hastie *et al.*, 2011) [16], and to provoke the institution about the demand and supply process (Ball *et al.*, 2009) [5]. To create rubrics, it is very essential to establish assessment criteria and learning goal, introduce to the student that how to use rubrics. The process of development of rubrics are presented in next step:

**1.1 Background beyond the problem**

The broad interest in how and what, physical education students learn during their undergraduate and post-graduate program.What learning(s) a student is have? How they can be assessed for futuristic readiness? How they will implement their learning to profession? How they used their set of skill

to give more benefits to industry and society? So that student should be assessed before they get engaged in profession (Shavelson *et al.*, 1999) [24]. This assessment will be provide a vice a versa situation to student, institution and industry. For the assessment purpose a standardized tool is required first, variables must be identified, and rubrics must be create for assessment criteria (Vermunt *et al.*, 2018) [30].

**1.2 The Present study**

As physical education industry is full of variety in nature (i.e. profession like teaching, coaching, trainer, journalism, author, research associates, manufacturer, service provider, administrator, manager etc.), cultural differences, geographical differences, it seems to experience difficulties when associated as new professional in it. By collaborating, association, guidance and support one can tackle with the challenges and opportunities in the field (Alhanachi *et al.*, 2021) [2].

**2. Methodology**

**2.1 Aim**

The field of physical education has lack of research work with assessment of learning; the main aim of this study is to develop rubrics for assessing industry readiness in physical education.

**2.2 Participants**

50 undergraduate (UG) and post graduate (PG) students, 50 alumni (UG and PG), 50 parents (UG and PG physical education students), 50 faculty members (school and colleges), and 50 industry expert (principal of school and colleges, HOI, HOD, HR Manager, CEO, and owner) were identify for the data collection.

**2.3 Parameters**

Parameters of rubrics are identified on the review basis, and on the expert opinion.

**2.4 Theoretical background and fundamental stage’s rubrics**

To establish the rubric were initially implemented based on the reviews and expert opinion.

**2.5 Procedure**

The separate questionnaire were developed for the each category of stakeholders., data was collected and computing separately also in each category. A semi-structured interview was conducted to experts, and their opinion was recorded. Compilation of data, percentage on each sub-variables were findout through the help of SPSS, and a structured of outcomes is given below as rubrics:

**Table 1:** Represents the rubrics, internal and external issues, percentage, and level of importance of rubrics for assessment

Variables	Sub-variables	Context table of student performance indicators					Avg. %	Level of Importance (<75High;<50 Medium;<25 Low)**		
		Internal issue	External issue	% of Stakeholders*						
				1	2	3			4	5
Academics	Classroom teaching	No. of class, curriculum; Teaching	UGC regulation; NCTE;	83.3	100	96.6	95	100	94.98	High
		ability; Student Interest; Institutional infrastructure;	Educational policy, Unforeseen situation							
	Ground activity	No. of class; curriculum; Teaching Ability; Institutional infrastructure.	UGC regulation; NCTE; Educational policy; Climatic conditions	98.3	95.4	96.6	100	100	98.06	High
	Research	Infrastructure; Guidance;	MHRD; various external	75.8	90.8	86.2	88.3	87	85.62	High

	activity	Research ethics;	issues; External research ethics.								
	Conference	Infrastructure; no. of conference; level of reference.	Lack of participation;	71.7	87.7	91.4	91.7	85.2	85.54	High	
	Workshop	Infrastructure; lack of participants	Lack of participation;	73.3	92.3	87.9	91.7	83.3	85.7	High	
	Co-scholastic event participation	no. of events; curriculum based activity	UGC regulation; NCTE curriculum; lack of events	88.3	92.3	96.6	95	100	94.44	High	
Sports	Sports participation	no. of tournaments; level of participation;	Federation & organization; AIU; Climatic conditions.	98.3	98.5	93.1	96.7	100	97.32	High	
	Sports volunteer	no. of tournaments; level of participation;	Federation & organization; AIU; Climatic conditions.	95	93.8	86.2	95	90.7	92.14	High	
	Technical official	Federation & organization; AIU; Climatic conditions.	Federation & organization; AIU; Climatic conditions.	88.3	98.5	59.9	96.7	94.4	87.56	High	
	Sports event organizer	no. of events; curriculum based activity	Federation & organization; AIU; Climatic conditions.	94.2	100	77.6	95	98.1	92.98	High	
Industry Exposure	International Internship	Level of internship;	Policy of organization; Industry; Educational policy.	28.3	35.4	5.2	21.7	42.6	26.64	Low	
	Summer internship	Level of participation; No. of experience; Duration of experience;	Policy of organization; Industry; Educational policy;	33.3	40	20.7	50	85.2	45.84	Low	
	School Internship	availability in school; curriculum; student interest;	Management policy; NCTE	50	49.2	29.3	60	87	55.1	Medium	
	Apprentice	Organization setup; Management.	CSR Policy of organization;	29.2	33.8	5.2	31.7	48.1	29.6	Low	
	Sports Industry	Organization setup; Management.	CSR Policy of organization;	67.5	70.8	41.4	63.3	77.8	64.16	Medium	
	Corporate sector	Organization setup; Management.	CSR Policy of organization;	54.2	66.2	27.6	60	92.6	60.12	Medium	
	Federation/ Organization	Connect with the body;	Policy of federation/organization.	73.3	60	31	70	87	64.26	Medium	
	on site visit	No. of experience	Climatic conditions;								
			Organizing committee.	75.8	76.9	58.6	73.3	94.4	75.8	High	
Social Responsibility	NCC	Availability ; Admission	Govt. policies; Climatic condition	65.8	81.5	79.3	88.3	90.7	81.12	High	
	NSS	Availability ; Admission	Govt. policies; Climatic condition	65	53.8	24.1	68.3	66.7	55.58	Medium	
	NGO	Availability ; Admission	Govt. policies; Climatic condition	55.8	69.2	19	58.3	40.7	48.6	Low	
	NDRF	Availability of opportunity;	Govt. policies; Climatic condition	30	29.2	37.9	26.7	31.5	31.06	Low	
	Scout & guide	Availability ; Admission	Govt. policies; Climatic condition	60	73.8	8.6	61.7	74.1	55.64	Medium	
	Social awareness program	Availability of opportunity	NGO, Govt. policy, Climatic condition	69.2	90.8	24.1	81.7	96.3	72.42	Medium	

**Note:** % of stakeholders is represents as: 1-Student; 2-Alumni; 3-Parents; 4-Faculty; 5-Industry Expert;

## Result and Discussion

The findings say; that student performance assessment always required specific rubrics for justification and assessment. These can be a valid criterion for student performance assessment. Rubrics provide true factor for assessment of candidate, in the above table, percentage of each category of stakeholders are showing the agreement on particular variables.

More than 75% shows the keen interest of all the stakeholders, percentage between 50%-74% considered as medium interest of acceptance and importance of rubrics to stakeholders, percentage between 25%-49% considered as

low interest of acceptance and importance of rubrics to stakeholders, below 25% will not be accepted as rubrics, that variable will not be accepted as a part of assessment.

## Conclusion and Recommendation

On the basis of findings, it is concluded that a standard format of rubrics always been a priority for any industry. Physical education industry has many varieties, it is nearly impossible to bring them under one roof. Diversity bring many problem and challenges while assessing to assessing performance of candidate. Rubrics may help and reduce the level of risk, provide common criteria to stakeholder for assessment

according to their need. The finding of study, as benchmarking set limits for student to learn maximum for being industry readiness, also helps industry stakeholders to recruit good candidate. Rubrics also enable to the stakeholders to identify best practice to deliver the best and achieving the excellence in physical education in India. It is further recommended that the benchmarking process is required:

1. For common quality assessment.
2. For developing assessment tool for stakeholders.
3. For meeting industrial demand, and administrative feasibilities.

## References

1. Agarwal P. Higher education in India: The need for change. In Indian Council for Research on International Economic Relations 2006, 40(3). <https://doi.org/10.7551/mitpress/12187.003.0013>
2. Alhanachi S, de Meijer LAL, Severiens SE. Improving culturally responsive teaching through professional learning communities: A qualitative study in Dutch pre-vocational schools. *International Journal of Educational Research*, 2021 July;105:101698. <https://doi.org/10.1016/j.ijer.2020.101698>
3. Andrade HG. Using rubrics to promote thinking and learning. *Educational Leadership*, 2000;58(3 SUPPL.):22-26. <https://www.ascd.org/el/articles/using-rubrics-topromote-thinking-and-learning>
4. Arana FG, Rice KG, Ashby JS. Perfectionism in Argentina and the United States: Measurement Structure, Invariance, and Implications for Depression. *Journal of Personality Assessment*, 2018;100(2):219–230. <https://doi.org/10.1080/00223891.2017.1296845>
5. Ball DL, Sleep L, Boerst TA, Bass H. Combining the development of practice and the practice of development in teacher education. *Elementary School Journal*. 2009;109(5):458–474. <https://doi.org/10.1086/596996>
6. Bleske-Rechek A, David L, PBC. Meeting the Educational Needs of Special Populations: Advanced Placement's Role in Developing Exceptional Human Capital. *SAGE Journals*, 2004;15(4):217–224. <https://journals.sagepub.com/doi/abs/10.1111/j.0956-7976.2004.00655.x>
7. Cavanagh M. Students' experiences of active engagement through cooperative learning activities in lectures. *Active Learning in Higher Education*. 2011;12(1):23–33. <https://doi.org/10.1177/1469787410387724>
8. Chajewski M, Mattern KD, Shaw EJ. Examining the Role of Advanced Placement. *Educational Measurement Issues & Practice*. 2011;30(4):16-27. <https://doi.org/10.1111/j.1745-3992.2011.00219.x>
9. Chen W, Mason S, Staniszewski C, Upton A, Valley M. Assessing the quality of teachers' teaching practices. *Educational Assessment, Evaluation and Accountability*. 2012;24(1):25-41. <https://doi.org/10.1007/s11092-011-9134-2>
10. Chen W, Rovegno I. Examination of Expert and Novice Teachers' Constructivist-Oriented Teaching Practices Using a Movement Approach to Elementary Physical Education. *Research Quarterly for Exercise and Sport*. 2000;71(4):357–372. <https://doi.org/10.1080/02701367.2000.10608919>
11. Cohen R, Zach S. Building pre-service teaching efficacy: a comparison of instructional models. *Physical Education and Sport Pedagogy*. 2013;18(4):376–388. <https://doi.org/10.1080/17408989.2012.690374>
12. Edwards F. A rubric to track the development of secondary pre-service and novice teachers' summative assessment literacy. *Assessment in Education: Principles, Policy and Practice*. 2017;24(2):205–227. <https://doi.org/10.1080/0969594X.2016.1245651>
13. Evers T. Wisconsin' Standards for Physical Education. 2010. <https://dpi.wi.gov/sites/default/files/imce/sspw/pdf/pewisstandards.pdf>
14. Fox C, Zhu W, Park Y, Fisette JL, Graber KC, Dyson B. Development of PE metrics elementary assessments for national physical education standard 1. *Measurement in Physical Education and Exercise Science*. 2011;15(2):100–118. <https://doi.org/10.1080/1091367X.2011.568364>
15. Gorgon L, Aristide E, Deye MNM, Ferrand GND, Alphonse M. Evaluation of the Teaching of Physical Education and Sports Activities by Students in Physical Education. *Creative Education*, (2020). 11(06), 864–880. <https://doi.org/10.4236/ce.2020.116062>
16. Hastie P. Applied Benefits of the Sport Education Model. *Journal of Physical Education, Recreation & Dance*. 1998;69(4):24–26. <https://doi.org/10.1080/07303084.1998.10605530>
17. HEFCE. Performance indicators in higher education. In Higher Education Funding Council for England. 1999, 16(4). <https://doi.org/10.1007/BF00129112>
18. Herrmann KJ. The impact of cooperative learning on student engagement: Results from an intervention. *Active Learning in Higher Education*. 2013;14(3):175–187. <https://doi.org/10.1177/1469787413498035>
19. Kavanagh SS, Danielson KA. Practicing Justice, Justifying Practice: Toward Critical Practice Teacher Education. *American Educational Research Journal*, 2020;57(1):69-105. <https://doi.org/10.3102/0002831219848691>
20. MHRD. National Education Policy 2020. In Government of India. 2020. [https://www.mhrd.gov.in/sites/upload\\_files/mhrd/files/NEP\\_Final\\_English.pdf](https://www.mhrd.gov.in/sites/upload_files/mhrd/files/NEP_Final_English.pdf)
21. Michelsen S, Vabø A, Kvilhaugsvik H, Kvam E. Higher Education Learning Outcomes and their Ambiguous Relationship to Disciplines and Professions. *European Journal of Education*. 2017;52(1):56–67. <https://doi.org/10.1111/EJED.12199>
22. Perlman D, Karp GG. A self-determined perspective of the Sport Education Model. *Physical Education and Sport Pedagogy*. 2010;15(4):401–418. <https://doi.org/10.1080/17408980903535800>
23. Reddy YM, Andrade H. A review of rubric use in higher education. *Assessment and Evaluation in Higher Education*. 2010;35(4):435–448. <https://doi.org/10.1080/02602930902862859>
24. Shavelson JR, McDonnell LM, Oakes J. What are educational indicators and indicator systems? *Practical Assessment, Research & Evaluation*. 1999;2(11):2–4. <http://pareonline.net/getvn.asp?v=2&n=11>
25. Steppacher D, Cannarozzo Tinoco MA, Caten ten CS, Marcon A. Assessing administrative service quality in higher education: development of an attributebased framework (HEADSQUAL) in a Brazilian University. *Studies in Higher Education*. 2021;46(9):1785–1800. <https://doi.org/10.1080/03075079.2019.1706076>
26. Teane FM. What We Assess Is What We Produce: Moving Towards the Development of Skills in South

- African FET Colleges. *Community College Journal of Research and Practice*. 2021;45(9):663–673.  
<https://doi.org/10.1080/10668926.2020.1758241>
27. Tellmann SM, Røsdal T, Frølich N. Professional educational programmes under pressure. Organizational challenges related to strengthening research. *Studies in Higher Education*, 2021;46(9):1839–1849.  
<https://doi.org/10.1080/03075079.2019.1711039>
28. Tolgfors B, Öhman M. The implications of assessment for learning in physical education and health. *European Physical Education Review*. 2015;22(2):150–166.  
<https://doi.org/10.1177/1356336X15595006>
29. Tremble K, Lalancette D, Roseveare D. *Assessment of higher education learning outcomes (AHELO)*, 2012, 1.
30. Vermunt JD, Ilie S, Vignoles A. Building the foundations for measuring learning gain in higher education: A conceptual framework and measurement instrument. *Higher Education Pedagogies*. 2018;3(1):266–301.  
<https://doi.org/10.1080/23752696.2018.1484672>