# Supplementary Appendix

**Appendix 1. Demographic information**

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| **Demographics** | **Category** | **Frequency** | **Percentage** |
| **Gender** | Male | 132 | 34.6 |
|  | Female | 249 | 65.4 |
|  |  |  |  |
| **Age** | 21-30 | 191 | 50.1 |
|  | 31-40 | 100 | 26.2 |
|  | 41-50 | 64 | 16.8 |
|  | >50years | 26 | 6.8 |
|  |  |  |  |
| **Educational level** | Diploma | 66 | 17.3 |
|  | Bachelor | 209 | 54.9 |
|  | Master | 97 | 25.5 |
|  | Doctorate | 9 | 2.4 |
|  |  |  |  |
| **Teaching years** | 0-5 | 220 | 57.7 |
|  | 6-10 | 74 | 19.4 |
|  | 11-15 | 41 | 10.8 |
|  | >15years | 46 | 12.1 |
|  |  |  |  |
| **Monthly salary** | 3000-5000 | 138 | 36.2 |
|  | 5000-8000 | 164 | 43.0 |
|  | 8000-12000 | 57 | 15.0 |
|  | >12000CNY | 22 | 5.8 |

**Appendix 2. Descriptive statistics and correlation**

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| **Construct/Item** | **Mean** | **SD** | **Cronbach’s alpha** |
| Student Educational Satisfaction  | 3.985 | 0.821 | 0.917 |
| Student Academic Development  | 3.623 | 0.805 | 0.490 |
| Student Career Development | 3.437 | 0.801 | 0.810 |
| Student Personal Development  | 4.019 | 0.831 | 0.698 |
| Faculty and Administration Employment Satisfaction | 3.736 | 0.862 | 0.864 |
| Professional Development and Quality of the Faculty  | 3.576 | 0.910 | 0.882 |
| System Openness and Community Interaction  | 3.612 | 0.902 | 0.835 |
| Ability to Acquire Resources | 3.391 | 0.867 | 0.874 |
| **Overall Organizational Effectiveness** | **3.672** | **0.850** | **0.944** |
| General Entrepreneurial Leadership | 3.447 | 0.960 | 0.894 |
| Explorer Behavior | 3.529 | 0.946 | 0.907 |
| Miner Behavior | 3.640 | 0.921 | 0.877 |
| Accelerator Behavior | 3.377 | 0.983 | 0.917 |
| Integrator Behavior  | 3.480 | 0.958 | 0.936 |
| **Overall Entrepreneurial Leadership**  | **3.495** | **0.954** | **0.950** |
| Student Engagement  | 3.619 | 0.979 | 0.847 |
| Instructional Practice | 3.792 | 0.875 | 0.785 |
| Classroom Management  | 3.611 | 0.874 | 0.824 |
| **Overall Teacher Efficacy** | **3.674** | **0.876** | **0.976** |

**Appendix 3. Organizational effectiveness items and factor loading**

|  |  |
| --- | --- |
| **Organizational Effectiveness** | **Factor loading**  |
| ***Student Educational Satisfaction*** |  |
| Students enjoy their training institutions life. | 0.690 |
| Students maintain a good relationship with institutions. | 0.913 |
| Students are highly satisfied with their programme of study. | 0.771 |
| ***Student Academic Development.*** |  |
| Students achieve a high level of academic attainment. | 0.693 |
| Students are mostly self-directed learners. | 0.610 |
| ***Student Career Development*** |  |
| Graduates able to secure employment shortly after they graduate. | 0.710 |
| Graduates employed in their relevant fields of study. | 0.689 |
| Graduates highly commended by their employer. | 0.807 |
| Graduates get good salaries in comparison to graduates from the same discipline in other local universities. | 0.837 |
| ***Student Personal Development***  |  |
| Students are civic-minded. | 0.640 |
| Students active in extracurricular activities. | 0.745 |
| Students show high respect to teachers. | 0.786 |
| ***Faculty and Administrator Employment.*** |  |
| Teachers enjoy teaching. | 0.867 |
| Teachers enjoy conducting research. | 0.852 |
| Teachers satisfied with their working environment.  | 0.800 |
| I have a good management team. | 0.770 |
| ***Professional Development and Quality of the Faculty***  |  |
| My institutions ranks the highest in research amongst all local schools in the field. | 0.877 |
| Institutions have the best qualifications among all local schools. | 0.871 |
| Institutions are held in high esteem in local academic circles. | 0.900 |
| My institutions encourages and supports staff development. | 0.710 |
| ***System Openness and Community Interaction***  |  |
| Institutions are active in various community services. | 0.707 |
| Institutions emphasis on meeting the needs of employers. | 0.708 |
| Institutions enjoy a good reputation with the general public. | 0.851 |
| Institutions maintains a good link with industry and other institutions. | 0.848 |
| ***Ability to Acquire Resources*** |  |
| Institutions can attract the best student applicants.  | 0.829 |
| Institutions can attract and retain good quality staff. | 0.809 |
| Outperforms other local institutions in securing research funds. | 0.851 |
| Outperforms other local institutions in securing financial sponsorship from industry. | 0.808 |

**Appendix 4. Principal entrepreneurial leadership items and factor loading**

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| **Principal Entrepreneurial Leadership**  | **Factor loading**  |
| ***General Entrepreneurial Leadership***  |  |
| Spends time on new business development. | 0.697 |
| Points out the competition’s weaknesses and how we could take advantage of them. | 0.681 |
| Listens to and acts upon customer complaints. | 0.720 |
| Challenges us to think about new and better ways to do our work. | 0.683 |
| Assertively communicates to upper manager regarding how things could be run better. | 0.695 |
| Looks for creative ways to manage, use, or rearrange company assets and resources. | 0.750 |
| Passionately looks for new ways to grow the business. | 0.769 |
| Motivates us to think of innovative ways to beat the competition. | 0.747 |
| ***Explorer Behavior*** |  |
| Effectively pitch new business ideas to upper management. | 0.731 |
| Supports our suggestions for improving the business. | 0.747 |
| Communicates a vision of how the organization could be better in the future if we were to make certain improvements. | 0.716 |
| Encourages us to challenge the status quo. | 0.696 |
| Prioritizes customers needs when making changes to our organization. | 0.679 |
| Tells us where we stand in regards to the competition. | 0.671 |
| Encourages us to innovate in how we do our work. | 0.776 |
| Actively identifies, develops, and goes after new business opportunities. | 0.725 |
| Makes sure that we have the right team of people in place to successfully capture these new opportunities. | 0.750 |
| ***Miner Behavior*** |  |
| Displays enthusiasm for us learning new skills. | 0.723 |
| Quickly takes a different direction when results aren’t being achieved. | 0.628 |
| Encourages others to take the initiative and action for their own ideas. | 0.747 |
| Motivates people to think about how to do their work in new and interesting ways | 0.790 |
| Allots time to helping others find ways to improve our products and services. | 0.809 |
| Creates a climate that encourages continuous service improvement. | 0.738 |
| ***Accelerator Behavior***  |  |
| Willingly moves ahead with a promising new approach when others might hold back. | 0.706 |
| Promotes an environment where risk taking is encouraged. | 0.671 |
| Identifies, encourages, and protects rebels who might think and act differently than the majority of employees. | 0.643 |
| Encourages others to outwit and outmaneuver the company’s bureaucracy | 0.675 |
| Quickly utilizes different approaches to overcoming obstacles when the initial one doesn’t work. | 0.718 |
| Creates an environment where people feel free to try new things. | 0.716 |
| Challenges us to creatively discover ways to do more with less. | 0.725 |
| Demonstrates an entrepreneurial orientation at work. | 0.746 |
| Pushes the organization to be fast, flexible, and adaptable so that we can react quickly when new business opportunities arise. | 0.799 |
| Actively fights the encroachment of bureaucracy in the company. | 0.678 |
| Utilizes an extensive network of people throughout the organization that is willing to help if called upon. | 0.717 |
| ***Integrator Behavior*** |  |
| Analyzes work flow, resources, and procedures to see how we can do our work better and faster with better impact for the customer. | 0.694 |
| Expects us to constructively identify and solve cross-organizational problems and issues. | 0.742 |
| Willingly listens to suggestions from others about how to do things differently. | 0.756 |
| Support us in fighting for changes which will improve the way the company works | 0.709 |
| Strives to build an innovate culture within our company. | 0.747 |
| Encourages entrepreneurial thinking and risk taking. | 0.751 |
| Reacts quickly to remove organizational barriers that get in the way of doing business. | 0.700 |
| Encourages open communications and ideas sharing across organizational unites and functions. | 0.714 |
| Keeps the organization informed and updated on industry trends and competitor strategies. | 0.762 |
| Actively encourages business improvement suggestions throughout the organization. | 0.760 |
| Takes action to implement agreed suggestions. | 0.711 |
| Keeps the organization focused on its core strategy but also supports new business initiatives. | 0.729 |
| Puts aside money outside of the normal budget process in order to fund and support innovate ideas. | 0.676 |
| Encourage employees to challenge their decisions. | 0.596 |

**Appendix 5. Teacher efficacy items and factor loading**

|  |  |
| --- | --- |
| **Teacher Efficacy**  | **Factor loading**  |
| ***Student Engagement*** |  |
| How much can you do to get through to the most difficult students? | 0.466 |
| How much can you do to help your students think critically? | 0.457 |
| How much can you do to get students to believe they can do well in school assignment? | 0.533 |
| How much can you do to foster student creativity? | 0.479 |
| How well can you respond to difficult questions from your students? | 0.398 |
| How much can you do to adjust your lessons based on individual students’ competency? | 0.382 |
| To what extent can you provide additional information explanation or example when students are confused? | 0.422 |
| ***Instructional Practice*** |  |
| How much can you do to control disruptive behavior in the classroom? | 0.502 |
| To what extent can you define your expectations for student behavior? | 0.451 |
| How much can you do to get student to follow classroom rules? | 0.514 |
| How well can you respond to changing/misdemeanor students? | 0.452 |
| ***Classroom Management*** |  |
| How much can you do to motivate students who show low interest in school assignment? | 0.542 |
| How much can you do to help your students value learning? | 0.497 |
| How much can you assist families in helping their children do well in school? | 0.485 |
| How well can you implement alternative strategies in your classroom? | 0.489 |
| How well can you provide appropriate challenges for high performance students? | 0.414 |

**Appendix 6. Internal reliability and convergent validity of measurement model**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Construct** | **Item** | **Loading** | **Composite Reliability (>0.7)** | **Cronbach’s alpha** | **AVE (≥0.5)** |
| **Student Educational Satisfaction** | Maintaingoodrelationshipwithinstitutions | 0.752 | **0.722** | **0.917** | **0.466** |
| Highlysatisfiedprogrammestudy | 0.690 |
| Enjoytraininginstitutionslife | 0.597 |
| **Student Career Development** | Gemployedinrelevantfieldstudy | 0.651 | **0.810** | **0.810** | **0.518** |
| Ghighlycommmendedbyemployer | 0.761 |
| Ggetgoodsalariescomparisonlocalschool | 0.796 |
| Gsecureemploymentshortly | 0.660 |
| **Student Personal Development** | Studentscivicminded | 0.593 | **0.709** | **0.698** | **0.450** |
| Activeinextracurricularactivities | 0.682 |
| Highrespecttoteachers | 0.730 |
| **Faculty and Administrator Employment Satisfaction** | Teacherssatisfiedworkenvironment | 0.754 | **0.867** | **0.864** | **0.621** |
| Teachersenjoyconductingresearch | 0.824 |
| Teachersenjoyteaching | 0.844 |
| Teachershavegoodmanagementteam | 0.723 |
| **Professional Development and Quality of the Faculty**  | Institutionsencouragestaffdevelopment | 0.668 | **0.886** | **0.882** | **0.666** |
| Institutinsheldhighesteem | 0.875 |
| Institutionsbestqualification | 0.848 |
| Institutionsrankshighest | 0.856 |
| **System Openess and Community Interaction** | Maintaingoodlinkwithindustry | 0.818 | **0.836** | **0.835** | **0.563** |
| Agoodreputationinpublic | 0.825 |
| Meetingtheneedsofemployers | 0.671 |
| Institutionsactiveincommunityservices | 0.671 |
| **Ability to Acquire Resources** | Outperformsotherinstitutionsfinancial | 0.778 | **0.875** | **0.874** | **0.636** |
| Outperformsotherinstitutionsresuringfund | 0.830 |
| Retaingoodqualitystaff | 0.782 |
| Attractbeststudentapplicants | 0.798 |
|  |  |  |  |  |  |
| **General Entrepreneurial Leadership**  | Spendtimeonbusinessdevelopment | 0.682 | **0.895** | **0.894** | **0.516** |
| Pointoutcompetitionweakness | 0.678 |
| Listenstocustomercomplaints | 0.719 |
| Challengeusbetterwaysdowork | 0.684 |
| Assertivelycommunicatetouppermanager | 0.706 |
| Creativewaytomanagecompanyassets | 0.754 |
| Looksforwaystogrowbusiness | 0.773 |
| Innovativewaystobeatcompetition | 0.744 |
| **Explorer Behavior** | Pitchbusinessideastouppermanagement | 0.726 | **0.907** | **0.907** | **0.521** |
| Supportoursuggestionsforbusiness | 0.749 |
| Communicatesavision | 0.716 |
| Challengethestatusquo | 0.700 |
| Prioritescustomersneeds | 0.679 |
| Tellsuswherewestand | 0.669 |
| Encouragesustoinnovate | 0.778 |
| Identifybusinessopportunities | 0.724 |
| Intherightteamtocapturenewopportunities | 0.750 |
| **Miner Behavior** | Displaysenthusiasmlearnskills | 0.720 | **0.879** | **0.877** | **0.549** |
| Quicklytakesdifferentdirection | 0.628 |
| Takeinitiativeforideas | 0.743 |
| Innewandinterestingways | 0.788 |
| Allotstimeimporveproductsandservices | 0.813 |
| Createsaclimateserviceimprovement | 0.740 |
| **Accelerator Behavior** | Utilizesextensicenetworkofpeople | 0.716 | **0.918** | **0.917** | **0.504** |
| Fightsencroachmentofbureaucracy | 0.681 |
| Pushorganizationtbefastflexibleadaptable | 0.799 |
| Demostratesentrepreneruialorientation | 0.740 |
| Domorewithless | 0.725 |
| Feelfreetrynewthings | 0.715 |
| Utilizesdifferentapproachovercomeobstacles | 0.717 |
| Outwitoutmaneuverbureaucracy | 0.677 |
| Identifyencourageprotectrebels | 0.643 |
| Risktakingisencouraged | 0.674 |
| Willinglymovesahead | 0.709 |
| **Integrator Behavior** | Challengetheirdecisions | 0.595 | **0.937** | **0.936** | **0.517** |
| Putasidemoneyoutsidenomalbudget | 0.678 |
| Focuscorestrategysupportinitiative | 0.733 |
| Implementagreedsuggestions | 0.713 |
| Businessimprovementsuggestions | 0.760 |
| Informedupdatedontrends | 0.764 |
| Opencommunicationsideassharing | 0.714 |
| Reactsquicklyremovebarriers | 0.700 |
| Entrepreneurialthinkingrisktaking | 0.751 |
| Innocateculture | 0.747 |
| Fightingforchanges | 0.707 |
| Dothingsdifferently | 0.754 |
| Solvecrossorganizationalproblems | 0.740 |
| Doworkbetterfasterimpactforcustomer | 0.691 |
| **Instructional Practice** | Controldisruptivebehavior | 0.716 | **0.786** | **0.785** | **0.480** |
| Makeexpectationsforstudentbehavior | 0.675 |
| Getstudentsfollowclassroomrules | 0.709 |
| Respondmisdemeanorstudents | 0.668 |
| **Student Engagement** | Getthroughdifficultstudents | 0.667 | **0.850** | **0.847** | **0.448** |
| Thinkcritically | 0.674 |
| Getstudentsbelievetheycando | 0.729 |
| Fosterstudentcreativity | 0.689 |
| Responddifficultquestions | 0.631 |
| Adjustlessons | 0.621 |
| Provideadditionalinfoexplanation | 0.667 |
| **Classroom Management** | Motivatestudentsinterest | 0.732 | **0.825** | **0.824** | **0.485** |
| Valuelearning | 0.710 |
| Assistfamilieshelpstudent | 0.696 |
| Implementalternativestrategies | 0.703 |
| Provideappropriatechallenges | 0.637 |