

Should I ask for help? The role of motivation and help-seeking in students' academic achievement: A path analysis model

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Abstract

Academic achievement is considered as one of the major factors in the learning process, as it is one of the complex variables that have an important influence on learning. The purpose of the current study was to investigate the relationship between academic motivation, academic help-seeking and academic achievement. A total of 437 university students were selected randomly (simple random-online questionnaires) from many Arab countries (Jordan, Kingdom of Saudi Arabia, United Arab Emirates and Syria) who responded to the questionnaire on academic motivation (intrinsic, extrinsic and amotivation) and academic help-seeking (instrumental, executive, avoidance and benefits of help-seeking). Path analysis results showed direct effects from intrinsic motivation to instrumental help-seeking (0.291**), amotivation to executive help-seeking (0.709**), instrumental help-seeking to grade point average (GPA) (0.377**), executive help-seeking to GPA (-0.349**), intrinsic motivation to benefits of help-seeking (0.528**) and from amotivation to avoidance help-seeking (0.738**). Also, there were indirect effects from amotivation to GPA (-0.248**) and from intrinsic motivation to GPA (0.110**). The results illustrate the importance of academic motivation and help-seeking to provide a fuller understanding of students' academic achievement.

Keywords: Intrinsic motivation, extrinsic motivation, amotivation, instrumental help-seeking, executive help-seeking, avoidance help-seeking, benefits of help-seeking, path analysis.

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1. Introduction

Academic achievement is one of the phenomena that have occupied the mind of many educators, in general, and specialists in educational psychology, in particular, because of its importance in the lives of students, teachers and parents, especially in a society that gives academic achievement and access to a high level of achievement a great deal of weight (Al-Gharib, 1994).

Academic achievement is considered as a major axis in the learning process, as it is one of the complex variables that have an important influence on learning, which researchers try to explore their nature and the degree of their connection together due to their theoretical and practical importance. Disclosing the existence of a relationship between success rates and academic achievement is not only useful for knowing the relationship but also for using this relationship in the possibility of predicting the future performance of students (Jalal & Al-Khatib, 1997).

2. Literature review

2.1. Academic help-seeking

Help-seeking is an important self-regulated strategy that contributes to student learning (Newman, 1994). Ryan and Pintrich (1997) defined help-seeking as the ability to benefit from others as sources of coping with difficult and ambiguous situations in the learning process, while Karabeinck & Knapp (1988) defined it as 'An active self-regulated strategy that prepares students for future success'. Newman (1990) views help-seeking as an important strategy for achieving compatibility, as students are actively engaged in the task they are working on and that successful help-seeking requires students to define the task, link it to their previous knowledge, ascertain whether they need help and how to request and use it to achieve good educational outcomes.

The literature of psychological studies related to seeking help, whether related to the educational or non-educational context, indicates that two reasons motivate individuals to avoid seeking help despite the need for it. The first of these two reasons is individuals' belief that seeking help is a dependent behaviour that conflicts with the individual's needs for independence, and thus they avoid relying on others to satisfy this need; and the second reason is the belief of individuals that asking for help is evidence of inefficiency and thus avoiding asking others (Butler, 1998). Therefore, it is possible to distinguish between two patterns of seeking help when facing problems. The first of these is avoidant help-seeking in which the individual avoids seeking help despite realising his need for this help (Karabenick & Knapp, 1991; Newman, 1994). The second is the strategic help-seeking in which the individual finds solutions to the problems he faces or the ambiguities in which he lives, and he is not only searching for temporary solutions or easy and quick answers to the questions facing him, but rather seeks for help to develop his ability to face obstacles independently in the future and, thus, become an independent learner. Strategic help-seekers are highly motivated and confident in themselves to learn (Ryan & Pintrich, 1997).

The position of seeking academic help includes a conflict between the need to alleviate the current difficulty by seeking help from others, and the need to protect the image of one's self as an efficient and self-reliant person by refraining from seeking help. The resulting behaviour is a consequence of the relative strength of these two behavioural trends (Wills, 1983).

Nelson-Le Gall (1981) transformed educators' view of seeking help from one that reflects negativity and lack of competence to mature, positive behaviour that reflects competence. He defines academic help-seeking as a general problem-solving strategy that allows students to cope with academic difficulties by gaining help from others. He distinguished between two forms of seeking help based on the individual's goals; the first one is called instrumental help-seeking, also known as adaptive, and the second one is called executive help-seeking, which is also known as non-adaptive. Instrumental help-

seeking requires the student to seek only the help necessary to learn or complete the task successfully, and this form of help-seeking has the benefit of increasing students' learning that produces important benefits. On the contrary, executive help-seeking (non-adaptive) includes asking others to accomplish the task completely and get the job done, but does not enhance students' long-term learning.

2.2. Academic motivation and academic achievement

Academic motivation is one of the most important variables affecting student learning. Guay et al. (2010) defined it as the causes behind the behaviour. Broussard and Garrison (2004) define it as the tendency that drives an individual to do or not do something. Motivation is linked to several questions that the individual may ask himself, the most important of which is: Can I do this task? There is general agreement among psychologists that there must be an impetus for human learning to occur. In the absence of motivation, there will be no behaviour and hence learning will not occur (AlsPaugh, 1998)

Teachers are interested in developing a specific type of motivation in their students, which is academic motivation; it is defined as the student's tendency to take meaningful academic activities. We can say that motivation to learn requires more than a desire to learn, it includes strategies for a meaningful effective study, such as summarising, extending the basic ideas and drawing diagrams of the basic relationships between concepts (Woolfolk, 2001).

Academic motivation is an internal process with complex characteristics, it includes the individual's desire to exert effort and preoccupation with the task in learning situations, and it consists of two potential factors: intrinsic motivation, which includes the need for achievement and mastery of goals, and extrinsic motivation, which includes fear of failure, acceptance of peers, expectations of others and the strength of motivation (Abu Alya, 2007; Al-Feki, 2008).

In his theory of self-determination, Deci (1971) distinguished between two types of motivation based on different goals or causes that lead to the action: intrinsic motivation, which refers to doing something as a result of factors related to the person himself or the task he is performing. As for external motivation, it refers to doing something as a result of factors outside the person or not related to the task he is performing, such as getting a high score on the exam; he explained that how performance can be very different when an individual is driven by intrinsic or extrinsic causes.

The source of intrinsic motivation is the learner himself, as he starts his learning driven by an inner desire to please himself, seeking to feel the pleasure of learning and gaining knowledge and skills that he loves because of their importance to him. Therefore, intrinsic motivation is a necessary condition for self-learning and lifelong learning. As for extrinsic motivation, it is the source of external motivation, such as the teacher, school administration, parents or peers. The learner may seek learning to please the teacher or to gain his admiration and encouragement, and to obtain rewards (Lumsden, 1994).

When students are internally driven, they are interested in and involved in what they learn, and therefore they are active in processing information, and they tend to choose tasks that are novel and challenging to persevere and innovate in these tasks and reach a high level of academic achievement (Lepper et al., 2005). Several studies have found a positive relationship between motivation and academic achievement (Covington & Meller, 2001; Lepper et al., 2005; Yamauchi & Miki, 2003). Pintrich and DeGroot (1990) concluded that intrinsic motivation is the best predictor of students' academic performance. Educational literature assumes a positive relationship between academic motivation and academic achievement; increasing motivation contributes to improving achievement and learning increases from the student's understanding of his goal and his awareness of what he wants to achieve. Therefore, his perseverance, planning, enthusiasm and involvement in learning increases.

2.3. Help-seeking and motivation

Help-seeking has an important role for students to avoid potential failure and continue to integrate into the task and lead to success and increase the likelihood of independent learning and mastery in the long run. Newman (2002) argues that help-seeking requires specific motivation resources and competencies, such as cognitive sufficiency (in the sense of knowing when help is necessary, knowing that others can provide help and how to seek for help), social competence (knowing who is the best person who can provide help) and knowing how to seek help in a socially appropriate manner.

Depending on the motivation of the students' help-seeking, help-seeking appears either in the form of adaptive or non-adaptive behaviours. Students seek appropriate, avoidant or dependable help (Ryan et al., 2005).

Not all types of help-seeking are driven by deficits, problems or needs. For example, seeking for help may be used as a method of flattery, courtship or as a collection-oriented strategy used to support performance in tasks performed efficiently. Also, help-seeking may be driven by several factors that depend on the individual or the task. The aim of seeking help may be to complete the task, avoid criticism, avoid the task in its entirety or confirm the competence of the individuals (Depaulo, 1983; Nelson-Le Gall, 2006).

Batson et al. (cited in Huffman et al., 1997) developed two types of help-seeking motivation: The first is called egoistic motivation, which means that help-seeking behaviour is motivated by an expected gain, increasing self-esteem or to avoid feelings of guilt and sadness. The second type is called altruism, which means that the helping behaviour is motivated by sympathy for the person with the problem who needs help. This means that the egoistic motivation is driven by the desire to increase personal gains, while the altruistic motivation is driven by the desire to achieve the interest of others.

2.4. Help-seeking and academic achievement

Help-seeking is an interactive and structured social behaviour that positively affects students' academic achievement (Volet & Karabenick, 2006). The results of previous studies on academic help-seeking have shown that help-seeking from official sources, such as faculty members, academic services centres and from informal sources, such as peers and the family, leads to positive results, such as positive trends towards learning, increased self-efficacy and improved student learning (Karabenick, 2003; Sigmund, 2006).

Karabenick and Knapp (1988) assert that seeking academic help from colleagues and teachers is very useful and important in improving academic achievement. Newman (1990) considers it an important strategy used by those who face academic difficulties to obtain academic assistance and gaining information and skills. With age, the interest in evaluating students' performance increases, the students' awareness of the systems within the classroom increases too, as well as their awareness and knowledge of people who can provide effective help, and they acquire a set of strategies to obtain help. The process of seeking help continues from the elementary stage to the higher education stage.

Academic help-seeking is extremely important and closely related to students' academic motivation, academic achievement and leads to improving their learning and attitude towards it (Abu Ghazal, 2013). There is a variation among university students in their behaviour to seek academic help. Some of them seek help that is only necessary to learn and improve skills, and some of them ask others to complete the task for them completely and others refrain from asking for this help and avoid it. This variation results in differences in students' motivation, learning, cognitive and metacognitive strategies they use. Accordingly, it is important to study the relationship between academic help-seeking and academic motivation, and its reflection on academic achievement (Shafik, 2005; 2020).

Many models have tried to clarify the causal relationships between motivation variables, academic help-seeking and academic achievement, by presenting hypothesised models (Chik &

Abdullah, 2018; Holt, 2014; Huet et al., 2017; Marchand & Skinner, 2007; Nauzeer & Jaunky, 2019; Shabib & Al-Nabhani, 2017; Shafik, 2005; Yang & Cao, 2013; Zusho et al., 2007).

From the above-mentioned studies, it can be concluded that there is a relationship between achievement and motivation according to its source: intrinsic/extrinsic, academic help-seeking and academic achievement. Therefore, we can suggest a hypothesised model for the relationships between each of the academic motivation, academic help-seeking and academic achievement, as shown in Figure 1.

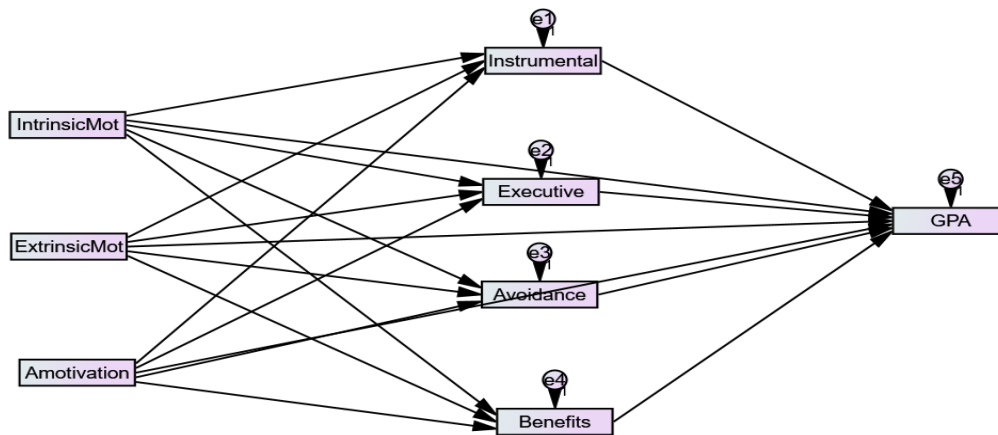


Figure 1. Hypothesised model predicting academic achievement (GPA), with help-seeking subscales as mediators, and academic motivation (intrinsic, extrinsic and amotivation) as independent variables

3. Methods

3.1. Participants

The population of this study involved university students in Jordan. The sample consisted of 437 students who were selected randomly (simple random–online questionnaires) from many Arab countries' universities (Jordan, Saudi Arabia, UAE and Syria). According to gender, 312 (71.4%) of the participants were female and 125 (28.6%) were male (mean age = 22.54 and Std. = 2.775). The participants responded to the study's measures in the summer semester of the 2019–2020 academic year.

3.2. Instruments

3.2.1. Academic motivation scale (AMS)

The AMS (Vallerand et al., 1992) was used to evaluate academic motivation among the study

sample. It consists of 28 items rated on a 5-point Likert-type scale (from '1 = not at all true' to '5 = very true') measuring three dimensions (intrinsic motivation = 12 items, extrinsic motivation = 12 and amotivation = 4 items). Vallerand et al. (1992) investigated its reliability using Cronbach's alpha coefficient, which ranged between 0.83 and 0.86; they also investigated the convergent validity of the scale, by examining the relationship between the scale's dimensions and other measures of motivation. The results confirmed the validity of the AMS as a measure of motivation.

3.2.2. Help-seeking scale

The help-seeking scale (Abu Ghazal, 2013) was used to assess students' help-seeking behaviour. The scale consists of 24 items rated on a 5-point Likert-type scale (from '1 = not at all true' to '5 = very true') measuring four dimensions (instrumental help-seeking (adaptive) = 4 items, executive help-seeking (non-adaptive) = 4 items, avoidance help-seeking = 10 items and benefits of help-seeking = 6 items). Abu Ghazal (2013) applied exploratory factor analyses to assess the scale construction. The results showed that there were four factors with Eigenvalues exceeding 1. The reliability of the scale was assessed using Cronbach's alpha coefficient, for the four sub-scales, whose values were 0.53, 0.75, 0.84 and 0.89, respectively.

3.2.3. Validity of academic motivation scale (AMS)

The validity of the academic motivation scale was evaluated using Pearson's correlation coefficients between per item and its dimensional total score (see Table 1).

Table 1. Pearson's correlation coefficients between the item score and its dimensional total score for the Academic Motivation Scale

| Intrinsic motivation | | Extrinsic motivation | | Amotivation | |
|----------------------|-------------|----------------------|-------------|-------------|-------------|
| Item no. | Correlation | Item no. | Correlation | Item no. | Correlation |
| 2 | 0.62** | 1 | 0.57** | 5 | 0.87** |
| 4 | 0.64** | 3 | 0.66** | 12 | 0.82** |
| 6 | 0.75** | 7 | 0.68** | 19 | 0.90** |
| 9 | 0.77** | 8 | 0.78** | 26 | 0.91** |
| 11 | 0.59** | 10 | 0.74** | | |
| 13 | 0.77** | 14 | 0.74** | | |
| 16 | 0.79** | 15 | 0.77** | | |
| 18 | 0.76** | 17 | 0.75** | | |
| 20 | 0.77** | 21 | 0.71** | | |
| 23 | 0.65** | 22 | 0.74** | | |
| 25 | 0.78** | 24 | 0.72** | | |
| 27 | 0.73** | 28 | 0.70** | | |

Table 1 shows that the AMS has an acceptable validity.

3.2.4. Validity of the help-seeking scale

The validity of the help-seeking scale was evaluated using Pearson's correlation coefficients between per item and its dimensional total score (see Table 2).

Table 2. Pearson's correlation coefficients between the item score and its dimensional total score for the help-seeking scale

| Instrumental help-seeking (Adaptive) | | Executive help-seeking (Non-adaptive) | | Avoidance help-seeking | | Benefits of help-seeking | |
|--------------------------------------|-------------|---------------------------------------|-------------|------------------------|-------------|--------------------------|-------------|
| Item no. | Correlation | Item no. | Correlation | Item no. | Correlation | Item no. | Correlation |
| 4 | 0.60** | 1 | 0.78** | 2 | 0.63** | 6 | 0.76** |
| 7 | 0.77** | 3 | 0.87** | 8 | 0.83** | 9 | 0.78** |
| 11 | 0.69** | 5 | 0.84** | 10 | 0.87** | 19 | 0.81** |
| 17 | 0.74** | 15 | 0.82** | 12 | 0.78** | 21 | 0.72** |
| | | | | 13 | 0.89** | 23 | 0.79** |
| | | | | 14 | 0.84** | 24 | 0.87** |
| | | | | 16 | 0.67** | | |
| | | | | 18 | 0.80** | | |
| | | | | 20 | 0.82** | | |
| | | | | 22 | 0.85** | | |

Table 2 shows that the help-seeking scale has an acceptable validity.

3.2.5. Confirmatory factor analysis (CFA)

CFA was conducted to test the measurement model of each scale. The results in Table 3 show the goodness of fit for the measurement model for each scale in addition to the cut-off points of each index according to Bollen (1989) and Bentler and Chou (1987).

Table 3: Goodness-of-fit (GOF) index for the study measures

| Goodness of fit (GOF) index | Criteria | Help-seeking | Motivation |
|-----------------------------|-------------------------|--------------|------------|
| χ^2 | $p\text{-value} > 0.05$ | 34.488* | 88.893* |
| χ^2/df | $\chi^2/df \leq 5$ | 4.927 | 4.939 |
| IFI | $IFI \geq 0.95$ | 0.986 | 0.958 |
| CFI | $CFI \geq 0.95$ | 0.986 | 0.958 |
| NFI | $NFI \geq 0.95$ | 0.983 | 0.948 |
| AGFI | $AGFI \geq 0.8$ | 0.914 | 0.907 |
| GFI | $GFI \geq 0.8$ | 0.978 | 0.953 |
| RMSEA | $RMSEA \leq 0.10$ | 0.095 | 0.095 |
| #sample moments | | 28 | 36 |
| #parameters | | 21 | 18 |
| df | | 7 | 18 |

Table 3 shows that both motivation scale and help-seeking scale have values of fit indices: IFI, CFI, NFI, AGFI and GFI greater than 0.9, which indicate good fit, and the RMSEA was 0.095, which indicates fair fit (MacCallum et al., 1996).

3.2.6. Reliability

3.2.6.1. The study scales reliability

The reliability of the academic motivation and help-seeking scales was evaluated using the alpha coefficient for each dimensional score. Table 4 shows that the scales used in the study have an acceptable degree of reliability.

Table 4. Reliability coefficients (alpha) for academic motivation and help-seeking scales' dimensions

| Measure | Alpha | Items no. |
|---------------------------------------|-------|-----------|
| Intrinsic motivation | 0.91 | 12 |
| Extrinsic motivation | 0.91 | 12 |
| Amotivation | 0.90 | 4 |
| Instrumental help-seeking (Adaptive) | 0.65 | 4 |
| Executive help-seeking (Non-adaptive) | 0.60 | 4 |
| Avoidance help-seeking | 0.93 | 10 |
| Benefits of help-seeking | 0.88 | 6 |

3.3. Research procedure

The academic motivation scale (Vallerand et al., 1992) and help-seeking scale (Abu Ghazal, 2013) were administrated on the study sample (online) in the summer semester of the 2019–2020 academic year.

4. Results

Before carrying out the main analyses, some examinations were done: univariate and multivariate outliers, normal distribution, correlation coefficients, means and standard deviations of all research subscales, as shown in Table 6. Missing values were found, no univariate outliers detected (i.e., z-scores were less than the absolute value of 3), seven multivariate outliers detected, the *p*-value of the Mahalanobis distance was $p_1 \leq 0.001$ (Momani & Gharaibeh, 2017), and because these outliers represented less than 2%, they will be included in the main analyses, as Meyers et al. (2013) recommended.

Table 5. Descriptive statistics for academic motivation and help-seeking

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | Mean | SD | Skew | Kurtosis |
|---|---|---|---|---|---|---|------|----|------|----------|
|---|---|---|---|---|---|---|------|----|------|----------|

| | | | | | | | | | | | |
|------------------|--------|--------|--------|--------|---------|--------|-------|--------|--------|--------|--------|
| 1. Instrumental | - | | | | | | | 15.396 | 3.184 | -0.199 | -0.677 |
| 2. Executive | -0.13 | - | | | | | | 11.082 | 3.289 | 0.654 | -0.205 |
| 3. Avoidance | 0.066 | 0.739* | - | | | | | 23.954 | 10.340 | 0.745 | -0.317 |
| 4. Benefits | 0.415* | 0.108* | 0.054 | - | | | | 23.922 | 4.876 | -0.724 | 0.346 |
| 5. GPA | 0.381* | - | - | 0.128* | - | | | 79.840 | 11.750 | -0.268 | -0.639 |
| 6. Intrinsic Mot | 0.291* | 0.008 | -0.004 | 0.528* | 0.178** | - | | 50.007 | 8.108 | -0.936 | 1.036 |
| 7. Extrinsic Mot | 0.265* | 0.091 | 0.060 | 0.418* | 0.146** | 0.719* | - | 50.096 | 8.226 | -0.753 | 0.165 |
| 8. Amotivation | -0.091 | 0.709* | 0.738* | 0.002 | -0.323* | -0.039 | 0.031 | 9.229 | 4.859 | 0.632 | -0.712 |

Table 5 shows that there were significant correlations between all variables except executive with instrumental help-seeking; instrumental with avoidance help-seeking; instrumental help-seeking with amotivation; executive help-seeking with each intrinsic and extrinsic motivation; avoidance help-seeking with each intrinsic, extrinsic motivation and benefits of help-seeking; benefits of help-seeking with amotivation; extrinsic motivation with amotivation; and extrinsic motivation with amotivation. The table also showed that all variables had skewness and kurtosis coefficient less than 1.96, which confirmed the normal distribution of the variables.

To assess the relationships between motivation, help-seeking and achievement, a path analysis for the hypothesised model shown in Figure 1 was conducted.

The hypothesised model in Figure 1 was first examined; GOF indices were used to assess the model's fit and modification indices (MIs) were used to modify the model. Table 6 shows that $\chi^2(9) = 493.99$, $p < 0.001$, GFI = 0.82, which represents a good fit, while all other GOF indices suggested a bad fit. Then, MIs were investigated, as recommended by Byrne (2013), to improve the research model.

Table 6: Hypothesised and modified models of GOF indices

| GOF index | Criteria | Hypothesised model | Modified model |
|-----------------|-------------------------|--------------------|----------------|
| χ^2 | $p\text{-value} > 0.05$ | 493.99** | 52.970** |
| χ^2/df | $\chi^2/df \leq 5$ | 54.888 | 2.78839 |
| IFI | IFI ≥ 0.95 | 0.671 | 0.977 |
| CFI | CFI ≥ 0.95 | 0.666 | 0.977 |
| NFI | NFI ≥ 0.95 | 0.881 | 0.964 |
| AGFI | AGFI ≥ 0.8 | 0.667 | 0.945 |
| GFI | GFI ≥ 0.8 | 0.818 | 0.971 |
| RMSEA | RMSEA ≤ 0.10 | 0.352 | 0.064 |
| #sample moments | | 36 | 36 |

| | | |
|-------------|----|----|
| #parameters | 27 | 17 |
| <i>df</i> | 9 | 19 |

Because of the poor fit model results, some *post-hoc* procedures for re-specification of the models were examined. Re-specification is allowed only if the modifications that researchers made are theoretically and conceptually accepted (Garson, 2012; Kuo et al., 2015). MIs and standardised residuals were used to identify the locations of model misfits and standardised residuals values exceeding 2.58, considered as large ones (Joreskog & Sorbom, 1993). MIs with the largest values will be checked first one by one, as well as insignificant weight coefficients will be removed, as mentioned by Kuo et al. (2015). The results of MIs and standardised residuals suggested some additional correlation pathways between intrinsic motivation and extrinsic motivation. This finding is consistent with that of van Heerden's (2014) study. Students may treat an academic task as both intrinsic and extrinsic motivation (Harter, 1981; Harter & Jackson, 1992).

This relationship is logical as both intrinsic and extrinsic motivation are two drivers of student behaviour towards achievement and success; so, the student uses all his sources of motivation to achieve the desired result, and thus a positive significant statistical correlation exists between intrinsic and extrinsic motivation as both aim at the same result. Also, some additional covariance pathways exist between executive and avoidance help-seeking subscales and instrumental and benefits help-seeking subscales; this finding is consistent with Ibrahim (2016). This relationship means that students who seek executive help also have a higher level of avoiding seeking help; we can explain this relationship that when students seeking executive help, they most likely do not receive it, and the reason for this may be due to cultural factors related to the nature of Jordanian society in particular, and the Arab society, in general, as cultural factors motivate the individual to provide instrumental help more than executive help, and therefore, when the students ask for executive help and do not get it, they will avoid seeking for help in the next time, and hence, students who are in high level ask for executive help-seeking had a high level of avoidance help-seeking.

At the same time, the positive relationship between asking for instrumental help and the benefits of seeking help means that the increase in the instrumental help-seeking is accompanied by an increase in the benefits of seeking help, and this means that students who realise that seeking help is an effective strategy and has many benefits tend to seek help that helps them in completing or learning the tasks, and this is a natural thing, as the availability of the cognitive side about the importance of seeking for help motivate students to ask it due to its importance.

After previous model re-specifications, an analysis was re-conducted and the GOF indices for the modified model were computed (see Figure 2 and Table 6).

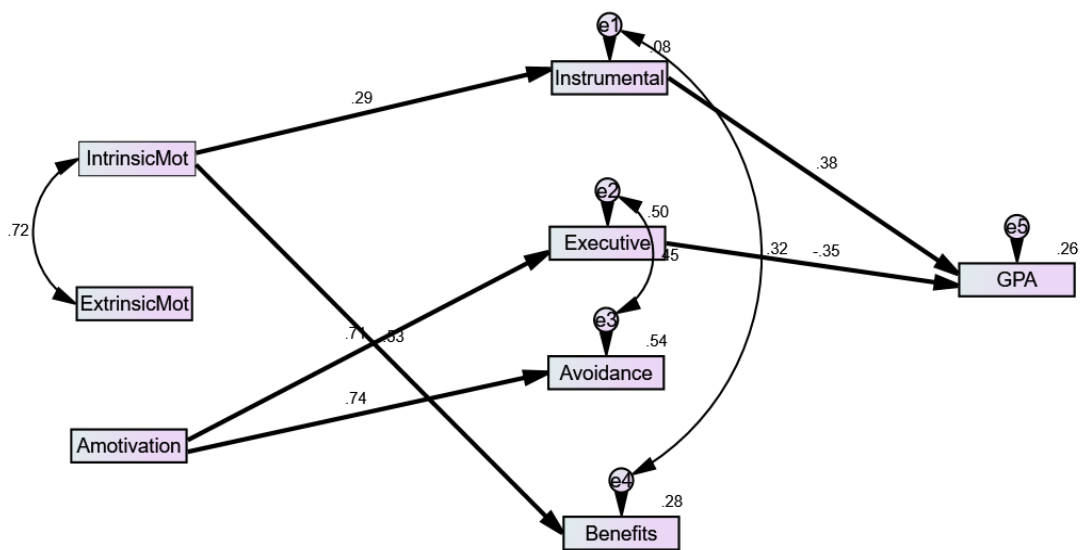


Figure 2. Model predicting academic achievement (GPA), with help-seeking as a mediator and academic motivation (intrinsic, extrinsic and amotivation) as independent variables. The values shown are standardised beta weights ($N = 439$). Only significant paths of the fully estimated model are shown

Table 7. Path coefficients for direct and indirect effects

| Variable | Standardised coefficient | SE |
|---------------------------|--------------------------|-------|
| Direct effects | | |
| Intrinsic to instrumental | 0.291** | 0.018 |
| Amotivation to executive | 0.709** | 0.023 |
| Instrumental to GPA | 0.377** | 0.151 |
| Executive to GPA | -0.349** | 0.147 |
| Intrinsic to Benefits | 0.528** | 0.024 |
| Amotivation to Avoidance | 0.738** | 0.069 |
| Indirect effects | | |
| Amotivation to GPA | -0.248** | 0.033 |
| Intrinsic to GPA | 0.110** | 0.021 |

Figure 2 and Table 7 show direct effects from intrinsic motivation to instrumental help-seeking (0.291**), amotivation to executive help-seeking (0.709**), instrumental help-seeking to GPA (0.377**), executive help-seeking to GPA (-0.349**), intrinsic motivation to benefits of help-seeking (0.528**) and from amotivation to avoidance help-seeking (0.738**). as Also, there were indirect effects from amotivation to GPA (-0.248**) and from intrinsic motivation to GPA (0.110**).

5. Discussion

The path analysis results indicated a significant positive effect from intrinsic motivation to instrumental help-seeking. This result is in agreement with the results of Yang and Cao (2013). Also, what Karabenik (2003) mentioned that strategic adaptive help seekers showed high levels of motivation. Shafik (2020) also pointed out that the intrinsic motivation orientation affects the students' intentions to seek academic help, and therefore it is natural for the students' motives to influence the determination of their behaviour towards academic help-seeking. Besides, intrinsically motivated students set goals for their learning, monitor and regulate their motivation and behaviour, and control their perceptions and direct them towards achieving their goals in educational situations. They will most likely be the ones seeking instrumental help.

Just as intrinsically motivated students look for help that contributes to developing their skills, and they seek the only necessary help to learn or complete the task successfully, they are more inclined to seek instrumental help. This applies to the benefits of seeking help, as the results show that there is a significant positive effect from intrinsic motivation to the benefits of seeking help. It appears that students who have high internal motivation are aware of the benefits of seeking help and its positive implications on their learning. The belief that helps to ask helps them learn, makes them more enjoyable and enables them to understand the lessons. All this pushes them towards seeking the necessary help from others for achievement and perfection. These results can be interpreted based on the characteristics of the students who are looking for instrumental help-seeking, and the characteristics of students with the belief in the benefits of seeking help, as Zimmerman and Martinez's (1986) study confirmed that these students are of high academic motivation. To perform a task to obtain pleasure and happiness (Alwan & Attiyat, 2010), the intrinsic motivate student, when he asks for help, he asks for instrumental help because he knows its benefits and good results, and does not ask for executive help that provides him with ready-made solutions because this contradicts With the principle of achieving pleasure and happiness that he seeks.

At the same time, the results showed a significant positive effect from Amotivation towards executive help-seeking and towards avoidance help-seeking, and this result is consistent with the result of the presence of an effect of intrinsic motivation towards instrumental help-seeking, while the intrinsically motivated students seeking for instrumental help. Students who lack motivation avoid seeking help from others because they are not keen on achievement and excellence, even if they do ask for help they tend to seek executive help, which enables them to get readymade solutions without making any effort. We can use the same interpretation of the previous result in interpreting this result.

The results of the path analysis also found an effect from Instrumental help-seeking to GPA. This result is in agreement with Al-Jabri (2017), with Williams and Takkan (2011), who found that help-seeking behaviour was the strongest predictor of academic success, and also with the results of Li and Cheung's (1999) study, which revealed that academic achievement was positively associated with the benefits of help-seeking and Instrumental help-seeking. This effect may be explained according to the fact that student's academic achievement level (GPA) is affected by his need for help (Mahfouz & Fakhro, 1992), and also according to Karabenik (2003) who mentioned that strategic adaptive help-seeking associated with academic achievement. This result can also be attributed to the characteristics of students who request Wessel aid. These students are of high academic motivation (Zimmerman &

Martinez, 1986), more efficient and independent in their learning, they are metacognitive and self-organised learners (Karabenick, 2004; Sigmund, 2006), more interest in the task and more determination to accomplish it (Collins & Sims, 2006). Based on that, it can be said that these positive features that characterise students who seek instrumental help will be positively reflected in improving their achievement level.

Another significant effect resulted from path analysing, it was from executive help-seeking to GPA, but this effect was inverse. This result is in agreement with many studies (Abu Ghazal 2013; Li & Cheung, 1999; Ryan et al., 2005). This result can be explained by the fact that high-achieving students are more interested in academic excellence than students with low academic achievement. Therefore, they turn to seek instrumental help that brings them mastery and good learning (Al-Jabri, 2017). As for students with low academic achievement, they face tasks that are difficult for them to deal with and solve, and this matter may lead them to the feeling of powerlessness to perform the tasks required similar to their high-achieving colleagues, and this matter may make them frustrated, which leads them to request the help from others in doing the work on their behalf because they feel unable to carry out these tasks to bridge the gap between them and those with higher academic achievement, as they are most likely dependents and do not initiate their work; so, logically, they show a high level of executive help-seeking, and from here the effect of executive help-seeking appeared as an adverse effect on academic achievement, In the sense that the high level of executive help-seeking accompanies the low academic achievement.

The results of the path analysis showed that there are two indirect effects from motivation to academic achievement, the first was from Amotivation to academic achievement (GPA) and it was a reverse effect, meaning that the higher the student's scores on the Amotivation scale, the effect of that on his academic achievement decreased, and vice versa, this result is consistent with Alwan and Attiyat (2010); Nauzeer and Jaunky (2019). This indirect adverse effect can be explained in that when students lack motivation, they will avoid seeking help or they will seek executive help, and this matter was clearly shown in the results of the path analysis. Whether students avoid seeking help or seeking executive help, it is likely to lead to negative results in students' academic achievement because they are most likely not to receive the executive help they are looking for, because their classmates will refrain from providing that executive help for several reasons, including they may be considered this as a kind of exploitation and bullying, teachers may also refrain from providing this kind of help to urge the student to make more effort, as well as to encourage the student to be an explorer learner instead of being a recipient, and whether this or that, this type of Students' academic achievement will decrease. Hence, it can be said that academic help-seeking plays a mediating role between academic motivation and academic achievement.

The second indirect effect was from intrinsic motivation to academic achievement (GPA), and this result is consistent with many studies (Abbas, 2020; Alwan & Attiyat, 2010; Nauzeer & Jaunky, 2019; Vallerand, 1997). Lepper et al. (2005) pointed out that when students are intrinsically driven, they are interested and involved in what they learn, and thus they are active in processing information and they tend to choose tasks that are novel and challenging: to persevere and innovate in these tasks and to reach a high level of academic achievement. Shafik (2005) also mentioned that students who use motivational strategies show a deeper cognitive engagement and better academic achievement than those who do not regulate their motivation.

This result can be explained by the fact that students with intrinsic motivation are often interested in what they learn, are more effective and active in processing information and tend to choose tasks that are novel and challenging to reach high academic achievement. Intrinsic motivation includes enjoyment of learning that is characterised by curiosity, orientation towards perfection and

perseverance towards learning the tasks. This result can also be explained by the fact that students with intrinsic motivation are focusing on individual and self-learning, and attribute their success and achievements to their abilities and efforts, and thus, they tend to master tasks on their own without the help of others. Therefore, when they are faced with difficult tasks and are not able to deal with it properly, it is more likely that they will be seeking help from teachers as well as from colleagues, and their goal of this help is to obtain guidance and information on how to deal with this difficult task on their own. Getting the help that enables them to understand all aspects of the task, as well as the correct steps to deal with it, and then accomplish what is required of them with their efficiency and their effort, not the effort of others. This, in turn, is reflected in the mastery of their lessons and their obtaining high marks in the exams, which raises their academic achievement. This means that seeking help plays a mediating role between motivation and academic achievement.

6. Conclusion

We can conclude that the academic help-seeking plays an important mediating role in the relationship between motivation and academic achievement, and this was demonstrated by establishing many causal relationships between the variables of the hypothesised model to explain the causal relationships between motivation (intrinsic, extrinsic and amotivation) as independent variables, and academic achievement, represented by the grade point average GPA (as a dependent variable), and the academic help-seeking (instrumental, executive, avoidance help-seeking and the benefits of seeking help) as intermediate variables between motivation and GPA. The pathway analysis results showed the importance of these relationships in raising the level of academic achievement of students by paying attention to their level of motivation (especially intrinsic motivation), as well as encourage them to use academic help-seeking (especially instrumental) and informing them of the importance and benefits of seeking help in increasing the chances of success in their life, in general, and their study, in particular.

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